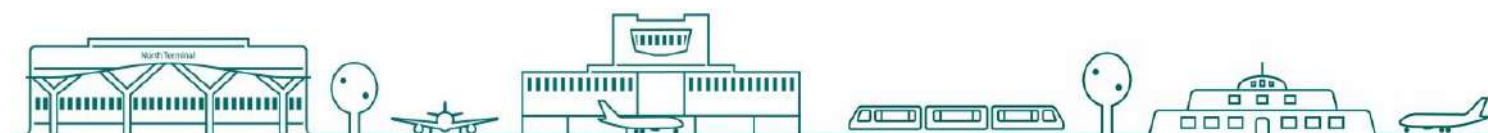


Gatwick Airport Flight Performance Report

This report covers the period
(1st January – 31st March 2019)



YOUR LONDON AIRPORT
Gatwick

Contents

- Introduction 2
- Runway Direction 4
- The Aeronautical Information Publication 5
- Departures - Noise Infringements 5
- Departures - Initial Climb Performance..... 6
- Departures - Track Keeping 7
- Departures – Over Congested Areas 11
- Arrivals – Continuous Descent Operations (CDO) 14
- Arrivals – Over Congested Areas 18
- Go-Around Statistics 21
- Night Flights 23
- Noise Complaints 25
- Ground Noise Complaints 29
- Glossary 29

Introduction

ABOUT THIS REPORT

This report is produced by the Gatwick Flight Performance Team (FPT). This team is responsible for recording, investigating and responding to aircraft noise enquiries as well as monitoring airline compliance to noise mitigation measures as detailed in the UK Aeronautical Information Publication (AIP). This department also actively engages with the airlines to improve their adherence to the above noise mitigation measures and in addition manages the night-time restrictions on flying at Gatwick.

This report contains detailed data on aircraft activity at Gatwick including the adherence to the noise mitigation measures detailed in the UK AIP, a report on night flying during the period, and an analysis of noise complaints received during the period.

KEY MONITORING INDICATORS – 1st JANUARY – 31st MARCH 2019

Parameter		12 month performance averages ¹			
		Year to date (2019) ⁷	Previous year (2018) ⁶	2011	2006
Track keeping performance (% on track)	▲	98.11%	98.09%	97.47%	98.17% ³
24hr CDO (% achievement) ⁴	▲	90.85%	90.42%	90.49%	80.79%
Day/Shoulder CDO (% achievement)	▲	90.92%	90.54%	90.19%	79.9%
Core night CDO (% achievement)	▲	90.10%	89.11%	93.96%	89.6%
1,000ft Infringements (No.)	-	0	0	3	11
1,000ft Infringements (No. below 900ft)	-	0	0	1	6
Departure Noise Infringements (Day)	-	0	0	0	10
Departure Noise Infringements (Night/Shoulder)	-	0	0	4	2
Individual complainants	▼	774	952	343	587
Total noise complaints received ⁵	▲	24204	18281	2673	4791
Enquiry response performance target is 95% within 8 days (January to March 2019)	▲	99.98%	100%	KPI 95%	
West/East Runway Split (%)	-	66/34	76/24	67/33	68/32

¹ The colour indicates the most recent 12 month performance compared to the 2011 END Baseline, with green showing improvement and red a decline in performance, the directional arrow indicating performance compared to the previous 12 month performance.

² Track keeping statistics measurement changed on the 26th May 2016 due to the Route 4 amendment, all SID's are now included in the total figure.

³ This figure did not include deviations from prop types or those due to weather.

⁴ As a result of the Independent Review of Arrivals, it was recommended (Imm-05) that the CDO monitoring altitude be increased from 6,000ft to 7,000ft as of 1st August 2016.

⁵ Complaints are recorded in line with our published complaints handling policy. The revised policy, published in November 2014, advised that only one complaint per day is recorded per individual. On the 29th September 2016, there was a further revision to our complaints handling policy which now allows individuals to make multiple complaints per day and these will each be recorded. It is important to note that since January 2018, complaints which have been deleted from the NTK system are no longer counted in the complaint statistics when they had been previously. Complaints are only deleted if they contain abusive, obscene or threatening language.

⁶ It should be noted that there were two separate NTK radar outages to the Casper flight tracking system which occurred between the 11th and 12th July 2018 and between 10th and 13th August 2018 inclusive. As a result of these outages, data has been omitted from the statistics for these dates and so these figures may not be exact for the period. Complaint data is unaffected.

⁷ It should be noted that due to the termination of the Casper NTK system on 31st March 2019, the figures for Q1 2019 only cover 1st January – 30th March 2019 inc.

Executive Summary

Performance Headlines

AIRPORT OPERATIONS

Between 1st January and 31st March 2019, there were a total of 62,378 fixed wing aircraft movements at Gatwick, an increase in traffic of over 3% compared to the same period in 2018. The direction of operation is determined by wind direction and this was split 66% on the westerly runway and 34% on the easterly runway for the period. The rolling 18 year average for the split in runway usage is approximately 68% westerly and 32% easterly.

STANDBY RUNWAY (26R/08L) USAGE

Although Gatwick has the main runway and the ‘reserve’ or standby runway, they cannot be operated simultaneously.

The standby runway is normally only utilised during the night when maintenance on the main runway is planned. During these three months, there were a total of 179 movements from the standby runway.

TRACK KEEPING

Track keeping performance has increased slightly compared to the previous years performance, details of which will follow later in this report. As part of our continuing commitment to increase on-track performance, the FPT also continues to engage with the airlines directly and through the Flight Operations Performance and Safety Committee (FLOPSC) on a range of initiatives to monitor compliance.

WOULD YOU LIKE TO KNOW MORE ABOUT AIRCRAFT NOISE OR TRACK A FLIGHT?

To track aircraft, see noise readings or make a complaint about aircraft noise at Gatwick you can visit our website: <http://www.gatwickairport.com/aircraftnoiseandairspace>

The website provides detailed maps on aircraft traffic around the airport as well as useful information on noise and statistics on aircraft movements. It also details the work we undertake with others in the aviation industry to try and alleviate the impact of our operations on both the local and wider community.

CONTINUOUS DESCENT OPERATIONS (CDO) PERFORMANCE

While the Noise and Track Keeping (NTK) system utilises the most up-to-date format of radar data currently available, the

algorithm that measures CDO performance has remained unchanged since the definition was initially defined several years ago. As part of a development project to improve the accuracy of CDO measurement, the FPT has worked closely with NATS to upgrade the current algorithm. The core algorithm remains unaltered, although some additional rules have been added with the result that some marginal profiles, previously classified as CDO compliant, will now be re-classified as non-CDO flights. These changes came into effect from May 2015 and the resulting variance in recorded levels of performance is in the order of 1%, therefore we expect to see a minor drop off in recorded performance from this date. Historical observations have consistently shown a reduction in performance during the winter months due to instances of inclement weather.

It is important to note that as recommended by the Independent Review of Arrivals, the altitude at which CDO is measured has changed as of 1st August 2016, more details later in the report.

COMMUNITY NOISE MONITORING

In addition to fixed monitors located close to the ends of the runway, there are currently mobile noise monitors deployed at sites in Lingfield, Rusper, Cowden, Charlwood (temporarily inactive), South Holmwood, Withyham and Hever Castle.

For several years, we have run a programme of noise monitoring to get a better understanding of the levels of aircraft noise in the communities surrounding Gatwick Airport. The noise monitors provide a method of monitoring and recording noise from both aircraft, and background sources. This allows us to evaluate trends and make comparisons between the noise environments at different locations.

COMPLAINTS

The number of recorded complaints has increased compared to the previous twelve months, however the number of complainants has decreased. Although the Airport has been just as busy as it has in recent years, there has also been a large amount of publicity surrounding the community issues related to the Route 4 Amendment and the Airport’s Draft Master Plan Consultation, which may be contributing factors for the number of complaints in this quarter.

The postcode areas with the greatest number of enquiries during the three month period were Outwood, Horley and Newdigate. The number of individual complainants between January and March was **192**. Complaints about aircraft operations are processed in accordance with our published Complaints Handling Policy. Details of this policy are available on our website.

Runway Direction

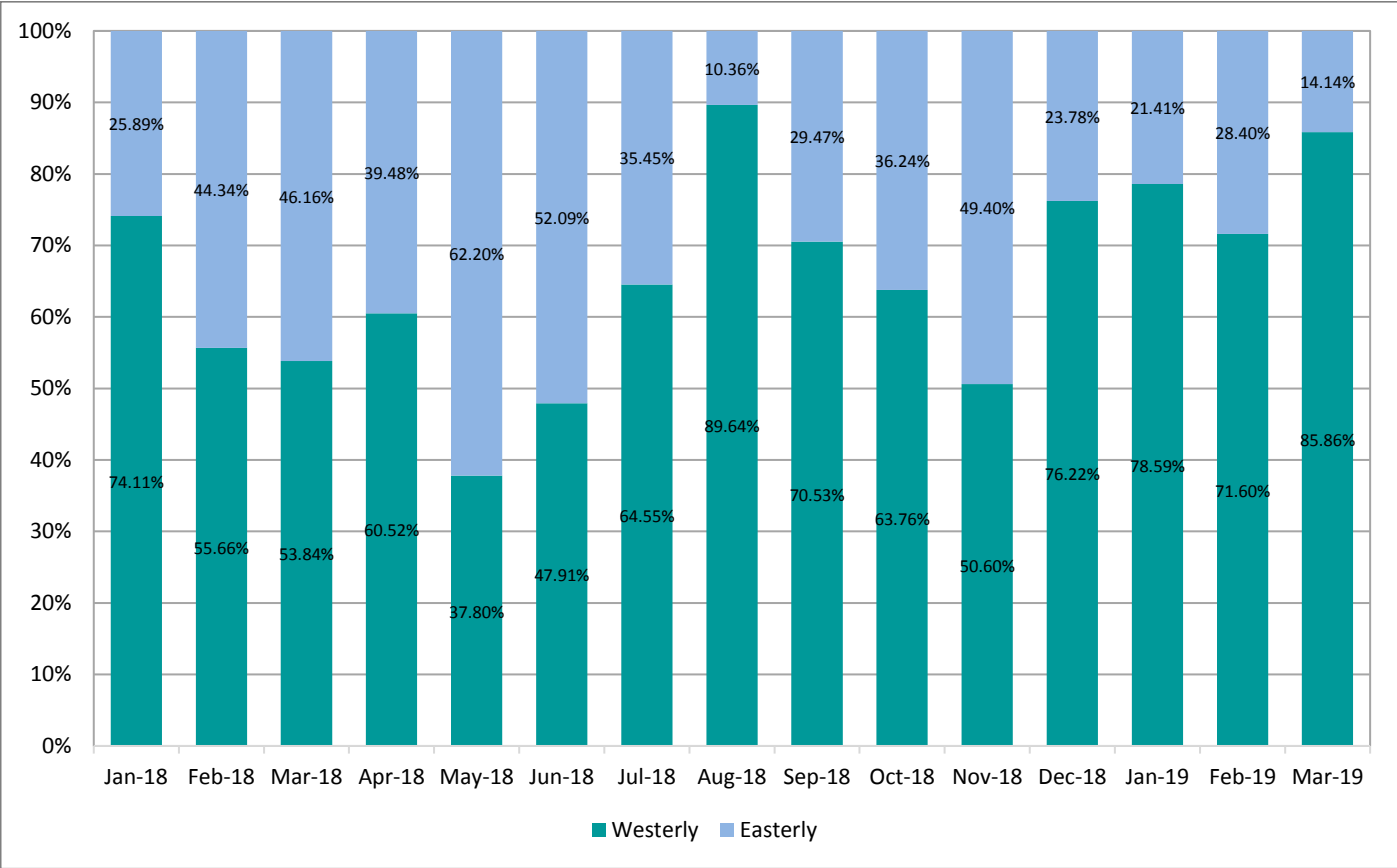
The graph below represents the direction of runway operation at Gatwick. Aircraft operating in a westerly direction take off towards the west and land from the east. Aircraft operating in an easterly direction take off towards the east and land from the west.

Although the long term average is approximately 68:32 in favour of westerly operations, it is not unusual to experience long periods of prolonged operation in either one direction or another.



RUNWAY DIRECTION SPLIT

THE GRAPH BELOW SHOWS THE SPLIT OVER THE 15 MONTH PERIOD (JANUARY 2018 - MARCH 2019)



The Aeronautical Information Publication

An AIP is defined by the International Civil Aviation Organisation (ICAO) as a publication issued by or with the authority of a state and containing aeronautical information of a lasting character essential to air navigation.

It is designed to be a manual containing thorough details of regulations, procedures and other information pertinent to flying aircraft in the particular country to which it relates. It is usually issued by or on behalf of the respective civil aviation administration.

The structure and contents of AIPs are standardized by international agreement through ICAO. AIPs normally have three parts - GEN (general), ENR (en route) and AD (aerodromes).

The Gatwick Aerodrome AIP contains details regarding the noise mitigation measures in place and adherence to these is reported in this section.

ADHERENCE TO NOISE MITIGATION MEASURES AS DETAILED IN THE GATWICK AIP

Each element of this report is preceded, where applicable, by the relevant AIP reference and summary text detailing the purpose of the requirement. Data is then presented on current performance.

It should be noted that Gatwick is 202ft above mean sea level (AMSL) and the NTK system measures height relative to Gatwick elevation and not sea level.

References in the AIP are usually above sea level (quoted as Gatwick QNH) and therefore need to be reduced by 202ft to be comparable with heights, as measured by the NTK system. For example, the requirement to join the ILS at 3,000ft would equate to 2,798ft in the NTK system.

No account is taken of the variability of heights as measured by the radar which, depending on the distance from the radar head, can be +/- 200ft from that indicated. This is obviously allowed for by NATS and ANS when managing operations.

Departures - Noise Infringements

DEPARTURE NOISE LIMITS (DAYTIME)

EGKK AD 2.21 (3(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 Lmax by day (from 0700 to 2300 hours local time) as measured at any noise monitoring terminal at any of the sites referred to in sub-paragraph (2). This is to ensure that departing aircraft do not exceed the stated level during the day.

Year	Number of Day Infringements	Year	Number of Day Infringements
2006	9	2013	0
2007	13	2014	0
2008	2	2015	0
2009	0	2016	0
2010	0	2017	0
2011	0	2018	0
2012	0	2019	0

DEPARTURE NOISE LIMITS (CORE NIGHT & SHOULDERS)

EGKK AD 2.21 (3(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 Lmax by night (from 2300 to 0700 hours local time) and that it will not cause more than 87 dBA Lmax 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). This is to ensure that departing aircraft do not exceed the stated levels during the night and shoulder periods.

Year	Number of Night & Shoulder Infringements	Year	Number of Night & Shoulder Infringements
2006	2	2013	0
2007	2	2014	0
2008	2	2015	0
2009	1	2016	1
2010	0	2017	2
2011	4	2018	0
2012	0	2019	0

Departures - Initial Climb Performance

EGKK AD 2.21 (3(1)) After take-off the aircraft shall be operated in such a way that it is at a height of not less than 1000ft aal (above airfield level) at 6.5 km from start of roll as measured along the departure track of the aircraft. This is to ensure departing aircraft achieve at least that climb gradient in order to reduce the impact on the ground.

Comment:

There were no infringements of the 1,000ft rule during this three month period.

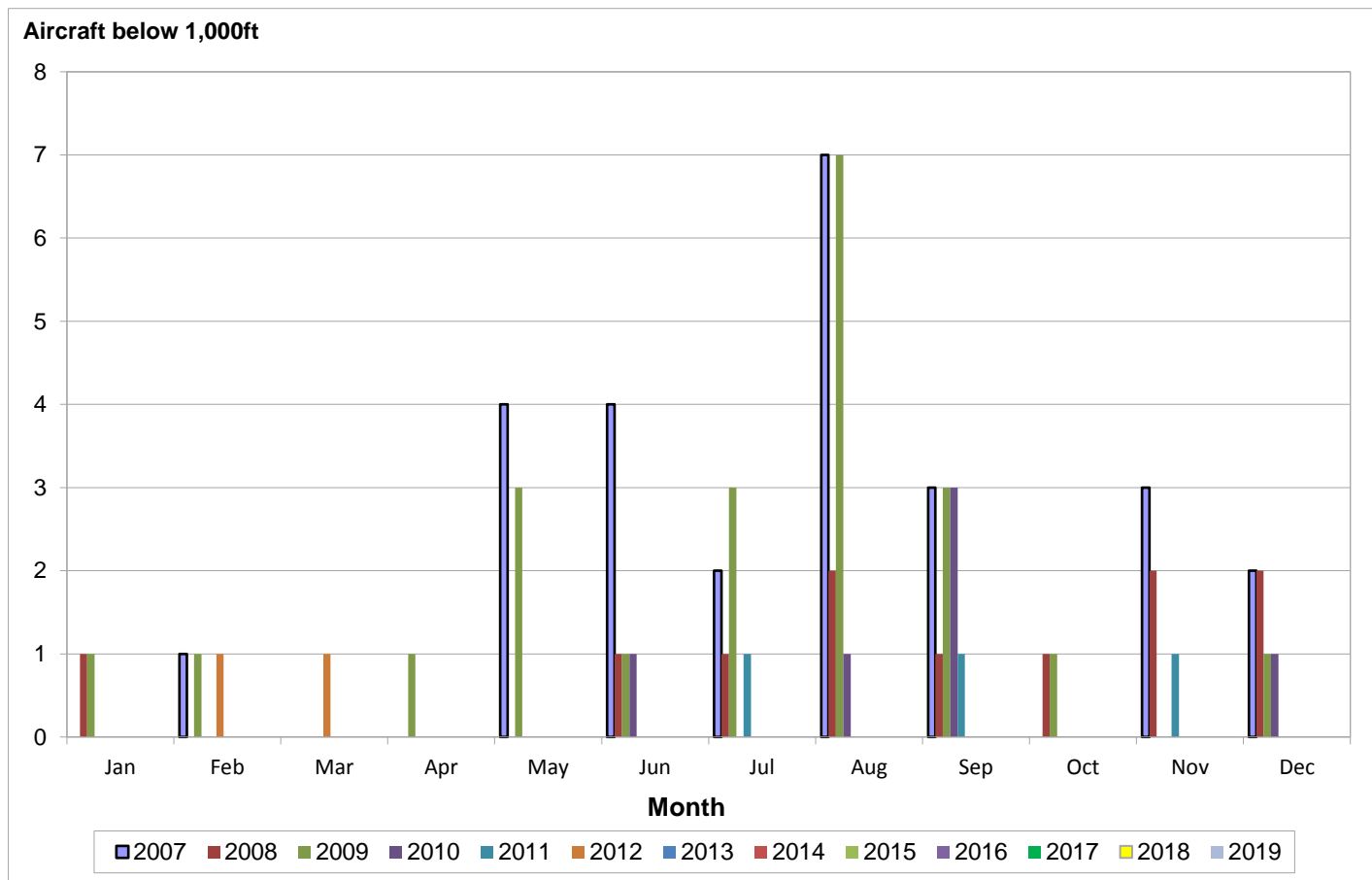
Historically, the summer months are typically the peak period for aircraft failing to meet the 1,000ft requirement, primarily due to the warmer weather which reduces aircraft climb performance.

1,000ft INFRINGEMENT TABLE

Year	Total Infringements	Year	Total Infringements
2006	11	2013	0
2007	26	2014	0
2008	11	2015	0
2009	22	2016	0
2010	6	2017	0
2011	3	2018	0
2012	2	2019	0

THE GRAPH BELOW ILLUSTRATES 1,000ft INFRINGEMENT PERFORMANCE SINCE 2007

Initial Climb Performance



Departures – Track Keeping

All jet aircraft leaving Gatwick Airport should follow flight paths known as Noise Preferential Routes (NPRs) up to a height of 3,000ft or 4,000ft depending on the route. An NPR consists of a 'centreline' and an associated compliance monitoring swathe (3km across, i.e. 1.5km either side of the NPR centreline). As long as aircraft remain within the corridor boundaries, they are deemed to be on-track. A map illustrating the NPRs at Gatwick is available overleaf.

Air Traffic Control (ATC) are responsible for the routing of aircraft once airborne and when 3,000ft or 4,000ft has been reached, they may give a flight a more direct heading, known as vectoring off of the route. This is subject to certain factors, including weather conditions and other traffic in the vicinity. Flights leaving the route below the required height are automatically flagged and details are sent to the airline for investigation. FLOPSC regularly review track keeping performance.

In 2012, Gatwick Airport publicly consulted on the implementation of a more modern form of aircraft navigation called P-RNAV (Precision Route Navigation). After having assessed all consultation feedback, the Civil Aviation Authority (CAA) granted the airport permission to implement P-RNAV on all of our departure routes. Implementing P-RNAV on the published departure routes has resulted in the tracks of departing aircraft being more concentrated within the boundaries of the current NPRs, with one exception. This is the NPR designed 26LAM/Route 4 that heads west then turns back on itself and passes to the north of the airfield. This route has always presented a challenge for modern jets as it was designed to accommodate propeller-driven aircraft and early jets that were around in the 1960s.

Implementing P-RNAV on this route required aircraft to fly outside of the current NPR. Therefore, as approved by the CAA, aircraft with a P-RNAV Standard Instrument Departure (SID) on this route were not classified as off-track as they were following the published route.

Following the introduction of P-RNAV at Gatwick Airport, the CAA conducted a Post Implementation Review (PIR) on all routes. The Review recommended that this particular route (Route 4) be modified so that departing aircraft are compliant and remain within the published NPR swathe. It now requires all SIDs to be counted in the track keeping statistics whereas

previously, the Route 4 P-RNAV SIDs were not included. Following the PIR and consultation, the CAA concluded that the modified Route 4 SIDs achieve a satisfactory replication of the nominal track of the corrected conventional SID and confirmed the P-RNAV SID designs currently published in the UK AIP as permanent.

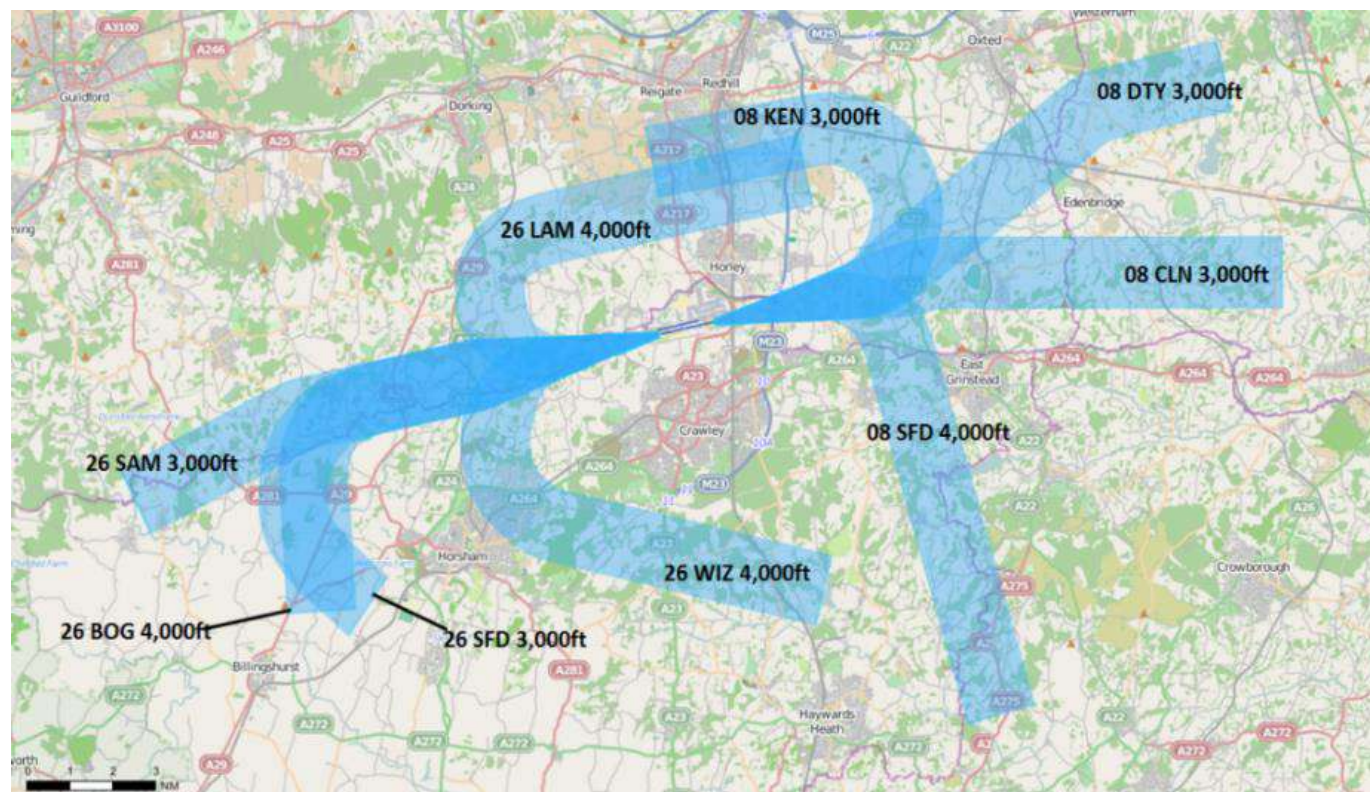
Following the quashing of the CAA's April 2017 decision by consent, Gatwick are working to revert the Route 4 conventional SIDs to their position as they were before 7th April 2017. In support of this, Gatwick completed a comprehensive safety review. Following validation by an independent Instrument Flight Procedure Designer, the changes were submitted to the CAA for approval in May 2018. (Note: as previously briefed this will not change the distribution of traffic).

Route 4 P-RNAV SIDs will remain in place but have reverted to a temporary status, as was the case prior to the CAA's decision in April 2017. A redesign of the Route 4 P-RNAV SIDs will be necessary through the development of a new Route 4 Airspace Change Proposal. We expect these changes to be introduced by the end of the year following the necessary changes to Air Traffic Control systems and aeronautical publications. This is subject to CAA resource availability.

The airport is focused on following the correct procedure taking into account the various relevant factors to achieve an end result as soon as possible. This required rigorous legal process and does however mean that a final outcome is likely to take up to two years to achieve. An Airspace Change Proposal will be developed in due course and will be consulted widely so communities will have the opportunity to contribute and influence.

There has also been a modification to our 08CLN/Route 5 NPR which has been in place since the 30th March 2017, as advised by the CAA. Previously, aircraft were flying slightly to the south of the NPR centreline and this modification aims to better replicate the existing conventional SID route and bring aircraft back towards the centre. This was monitored by the CAA for a six month period until the 30th September 2017 to ensure the aircraft were operating as anticipated. Gatwick is awaiting a decision from the CAA regarding its status.

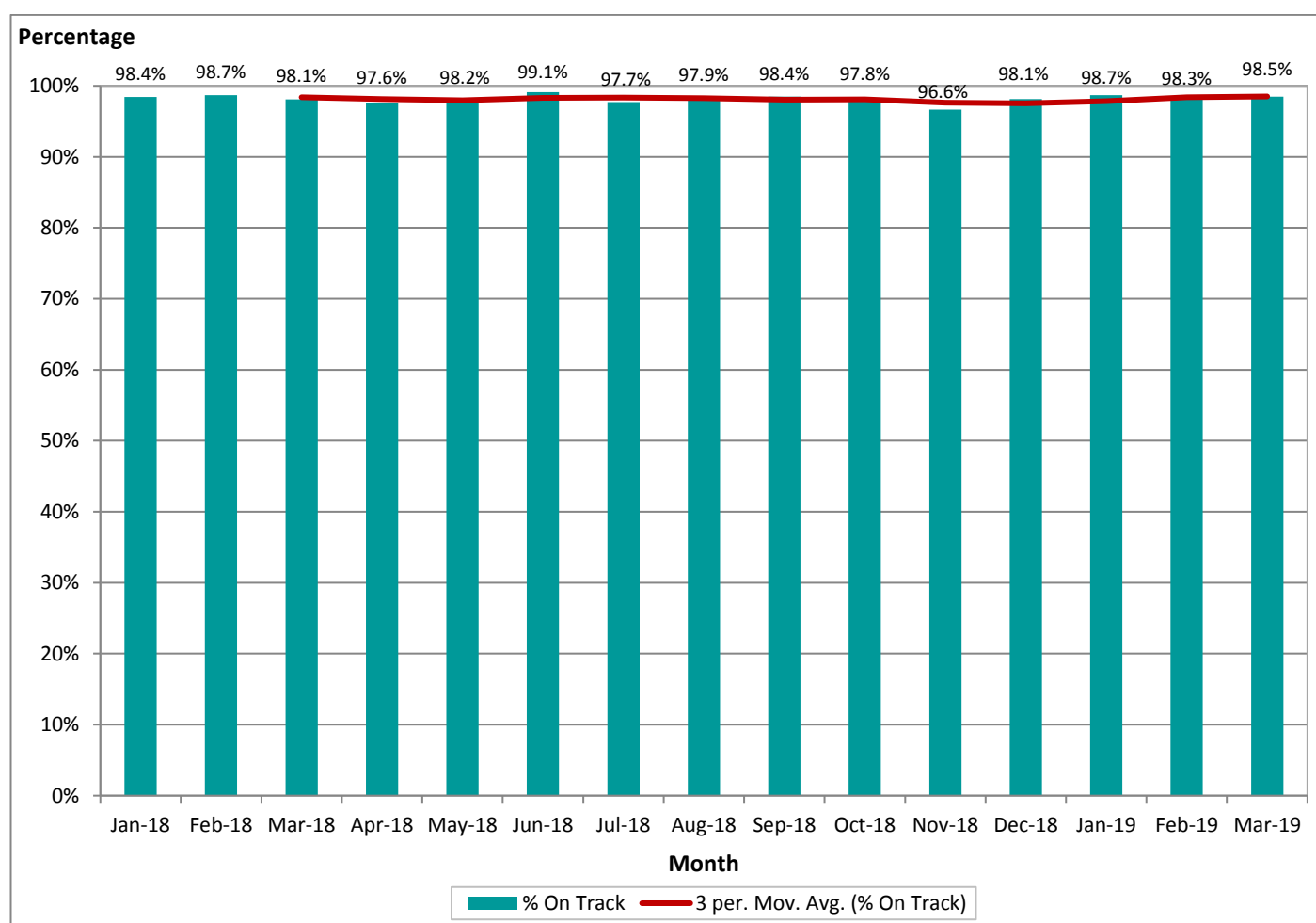
THE MAP BELOW ILLUSTRATES THE NOISE PREFERENTIAL ROUTES USED BY DEPARTING AIRCRAFT WITH MINIMUM VECTORING ALTITUDE FIGURES



THE TABLE BELOW ILLUSTRATES TRACK KEEPING PERFORMANCE OVER 15 MONTHS

Month	Total			Westerly			Easterly		
	Deviations	Departures	%	Deviations	Departures	%	Deviations	Departures	%
Jan-18	150	9546	1.57%	142	7004	2.03%	8	2542	0.31%
Feb-18	127	9577	1.33%	123	5370	2.29%	4	4207	0.10%
Mar-18	211	11065	1.91%	196	5930	3.31%	15	5135	0.29%
Apr-18	281	11715	2.40%	266	7111	3.74%	15	4604	0.33%
May-18	226	12788	1.77%	122	7937	1.54%	104	4851	2.14%
Jun-18	120	13301	0.90%	99	6428	1.54%	21	6873	0.31%
Jul-18	300	13029	2.30%	288	8829	3.26%	12	4200	0.29%
Aug-18	253	12323	2.05%	249	10866	2.29%	4	1457	0.27%
Sep-18	209	13472	1.55%	202	9505	2.13%	7	3967	0.18%
Oct-18	274	12530	2.19%	258	7966	3.24%	16	4564	0.35%
Nov-18	327	9705	3.37%	314	4904	6.40%	13	4801	0.27%
Dec-18	189	10191	1.85%	184	7762	2.37%	5	2429	0.21%
Jan-19	131	9895	1.32%	130	7806	1.67%	1	2089	0.05%
Feb-19	167	9963	1.68%	160	7098	2.25%	7	2865	0.24%
Mar-19	165	10926	1.51%	165	9751	1.69%	0	1175	0.00%

THE GRAPH BELOW ILLUSTRATES TRACK KEEPING PERFORMANCE OVER 15 MONTHS WITH A TREND LINE



UNUSUAL TRACKS

Some 'unusual tracks' taken by departing aircraft are recorded by our NTK system and these can occur for a number of reasons, such as weather avoidance. These can result in the aircraft leaving the NPR below the required altitude or aircraft that have vectored at the required altitude and then misdirected to avoid conflict with traffic from other airports. All unusual tracks are investigated with the airline concerned.

Comment: During this three month period, there were no unusual tracks identified.

Departures – Over Congested Areas

THE WIZAD NOISE PREFERENTIAL ROUTE

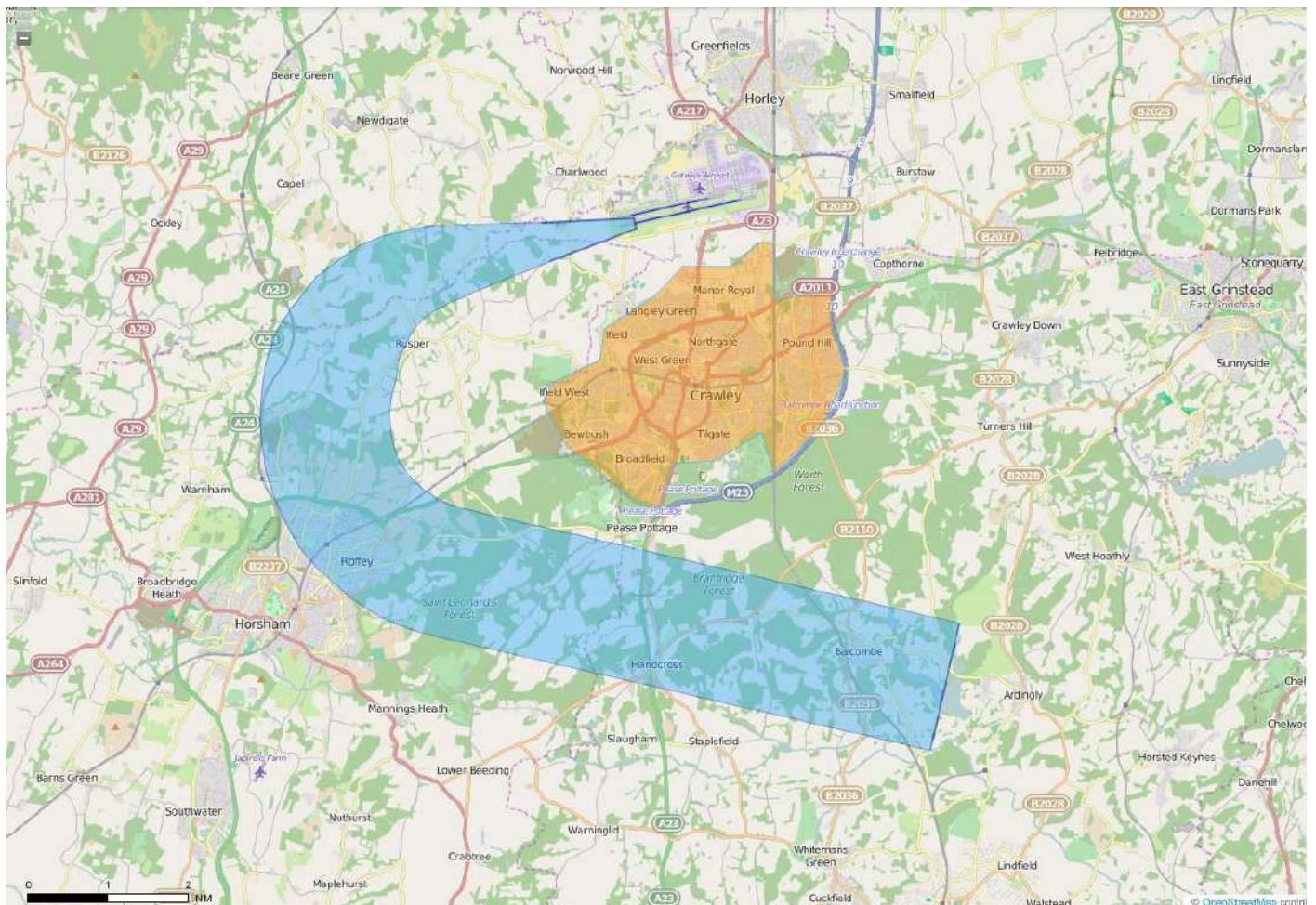
The WIZAD NPR (26WIZ or Route 9) was designated by the Government at the same time as all other Gatwick departure routes; however, it is not used on an equal basis with the other routes. It is a Tactical Offload Route and is not usually offered as part of a flight path. If the 26LAM Route (or Route 4) is very busy, WIZAD will be offered as a last minute alternative to ease the load.

As it is only a Tactical Offload Route, it is not well known and it is only offered to local pilots and usually used by more modern, high performance aircraft. It will also be used during periods of poor weather when an alternative to the usual routes may be required as aircraft should not fly through thunderstorms.

EGKK AD 2.21 (8)(c) *The ATC clearance via Mayfield specified in the second column of the table will not be available between 2300 hours and 0700 hours local time. Aircraft following the Noise Preferential Routing Procedure which relates to that clearance shall not fly over Crawley, Crawley Down or East Grinstead. This is to avoid aircraft noise from departing aircraft over areas of high population at night on the 26 WIZAD NPR.*

Comment: During this three month period, there were no departures during the restricted period on the 26 WIZAD NPR.

THE MAP BELOW ILLUSTRATES THE CRAWLEY TOWN BOUNDARY WITH NOISE PREFERENTIAL ROUTE 26 WIZAD



Overflight of Crawley and Horley

EGKK AD 2.21 (9) *After taking off the aircraft shall avoid flying over the congested areas of Horley and Crawley.*

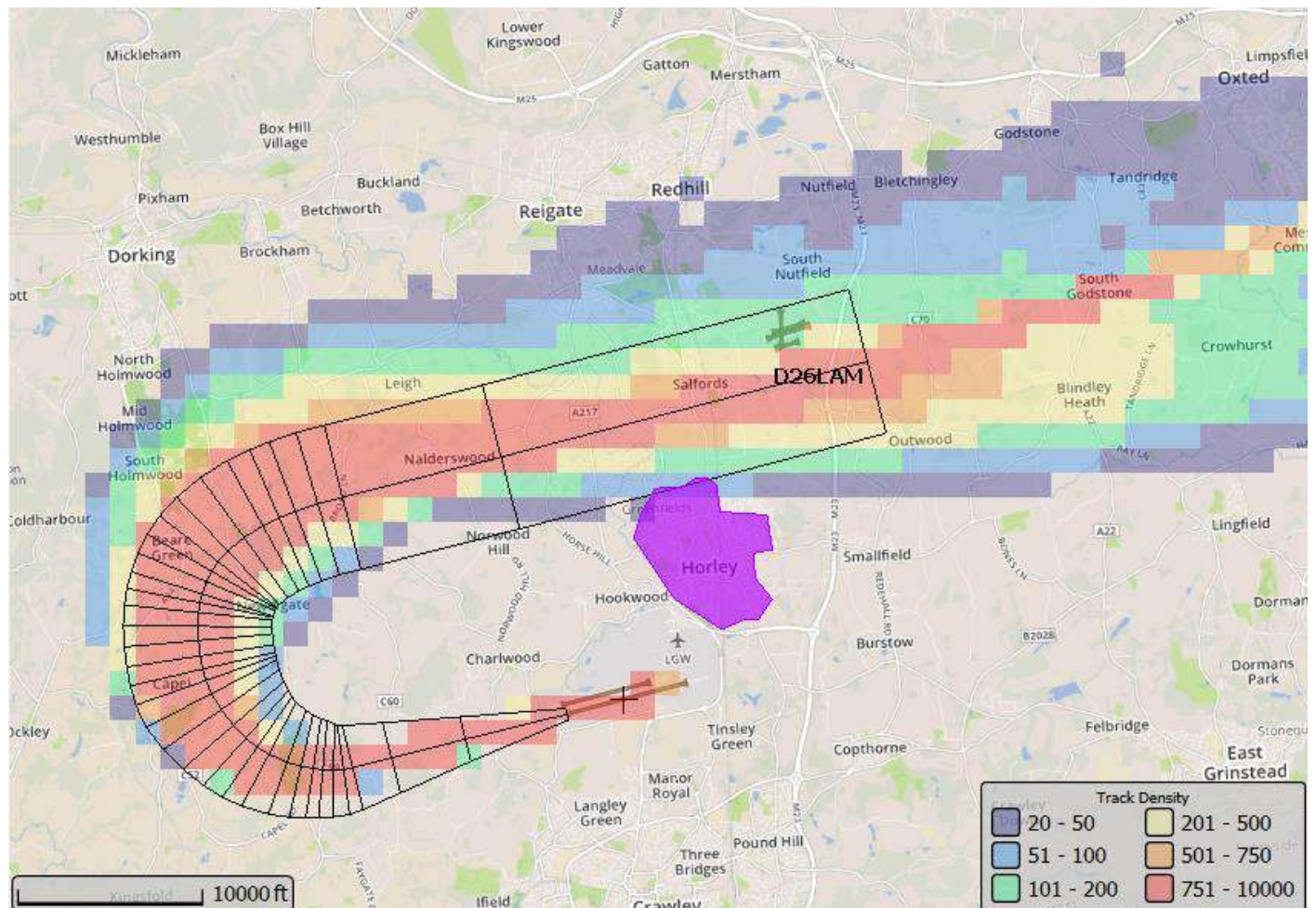
This is to avoid aircraft noise from departing aircraft over areas of high population.

Comment: During this period, there were no departing flights that passed over Crawley. It is important to note that Horley does experience overflight from Heathrow Airport traffic. The current construction of the SID is of the 'course to fix' type which determines the course to fly terminating at a waypoint whereas the 'radius to fix' specifies the curved path defined by radius, arc length and fix with the angle of bank being varied to achieve the specified path. Accelerating to a fixed

speed in times of strong south westerly winds (2000' wind >25kts) can exceed the aircraft's authorised limits. This leads to a variance between different aircraft types and operators and therefore, some aircraft fly further north or south than others. The wind and weather (e.g. thunderstorms) also has an effect on the headings of aircraft which may result in direct overflight of Horley.

It should be noted that the Casper NTK system experienced two radar outages between 11th and 12th July and 10th and 13th August inclusive which means data has had to be omitted from the figures for these dates

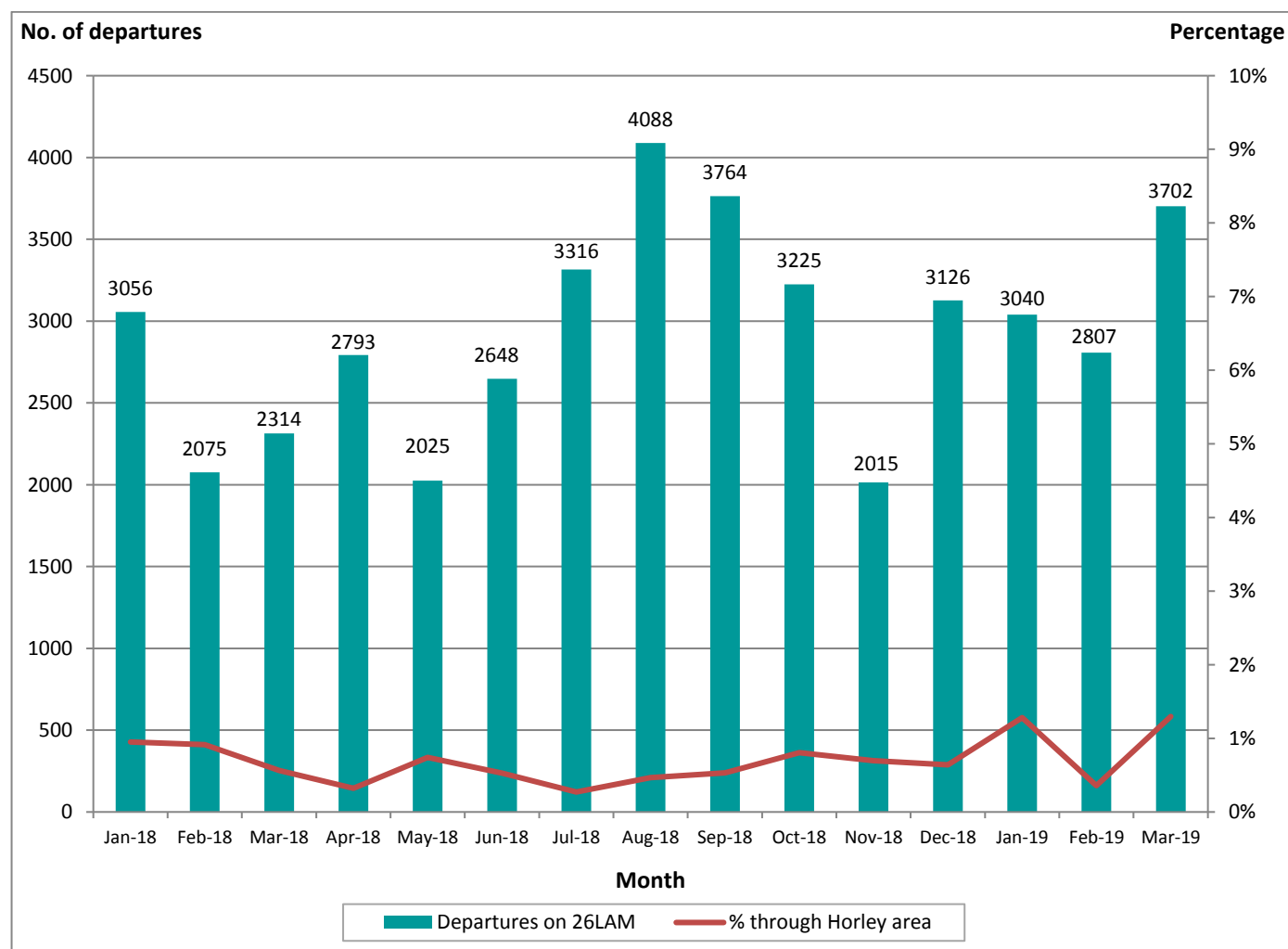
THE MAP BELOW ILLUSTRATES THE TRACK DENSITY OF DEPARTING AIRCRAFT ON THE 26 LAM DEPARTURE ROUTE DURING THE THREE MONTH PERIOD WITH HORLEY TOWN HIGHLIGHTED



THE TABLE BELOW ILLUSTRATES THE ANALYSIS OF HORLEY OVERFLIGHT

Month	Deps on 26LAM	Horley Area	% through Horley Area	Month	Deps on 26LAM	Horley Area	% through Horley Area	Month	Deps on 26LAM	Horley Area	% through Horley Area
Jan-17	2004	19	0.95%	Jan-18	3056	29	0.95%	Jan-19	3040	39	1.28%
Feb-17	2391	22	0.92%	Feb-18	2075	19	0.92%	Feb-19	2807	10	0.36%
Mar-17	3385	10	0.30%	Mar-18	2314	13	0.56%	Mar-19	3702	48	1.30%
Apr-17	3307	15	0.45%	Apr-18	2793	9	0.32%	Apr-19	-	-	-
May-17	2347	9	0.38%	May-18	2025	15	0.74%	May-19	-	-	-
Jun-17	4075	26	0.64%	Jun-18	2648	14	0.53%	Jun-19	-	-	-
Jul-17	4310	20	0.46%	Jul-18	3316	9	0.27%	Jul-19	-	-	-
Aug-17	4162	12	0.29%	Aug-18	4088	19	0.46%	Aug-19	-	-	-
Sep-17	4040	25	0.62%	Sep-18	3764	20	0.53%	Sep-19	-	-	-
Oct-17	4526	28	0.62%	Oct-18	3225	26	0.81%	Oct-19	-	-	-
Nov-17	3558	30	0.84%	Nov-18	2015	14	0.69%	Nov-19	-	-	-
Dec-17	3947	35	0.89%	Dec-18	3126	20	0.64%	Dec-19	-	-	-

THE GRAPH BELOW ILLUSTRATES THE ANALYSIS OF HORLEY OVERFLIGHT



Arrivals – Continuous Descent Operations (CDO)

A CDO (also known as a Continuous Decent Approach, CDA) is a noise abatement technique of flight during which a pilot descends at a rate with the intention of achieving a continuous descent to join the glide path at the correct height for the distance. This procedure thereby avoids the need for extended periods of level flight and results in keeping the aircraft higher for longer reducing the need for thrust. In addition to aiding noise reduction, this also reduces fuel burn thereby cutting emissions and producing an overall environmental benefit.

A CDO is a procedure designed to try and avoid prolonged periods of level flight below 7,000ft*. Studies have determined that elements of prolonged level flight are noisier than when following CDO. The aviation industry is working hard to improve compliance and an Arrivals Code of Practice (ACoP) has been produced by the Department for Transport (DfT) which aims to promote the use of CDO as a regular practice for all arriving aircraft:

‘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 7,000ft* QNH and ‘level flight’ is interpreted as any segment of flight having a height change of not more than 50ft over a track distance of 2nm or more, as recorded in the airport Noise and Track Keeping system.’

A CDO is not a precise art and relies on the accuracy of track miles provided by ATC to the flight crew coupled with pilot skill, weather conditions and operational circumstances. Additionally, different aircraft types perform differently requiring varying operating practices to be utilised in order to slow the aircraft down and meet speed restrictions. Therefore the procedures in the ACoP are advisory rather than compulsory, so there are no sanctions against pilots or airlines that fail to comply with the measures. Despite this, publication of the ACoP has resulted in significant improvements in CDO achievement at all times of day and night. The FPT are actively working with the airlines to encourage the use of CDO as a best practice method by continually providing monthly reports. Airlines and pilots are

keen to adopt this procedure for economic as well as environmental reasons and are active in promoting CDO within their companies.

CDO data is measured over three time periods:

- The Core Night period (2330-0600)
- The Day and Shoulder periods (0600–2330)
- The 24-hour period

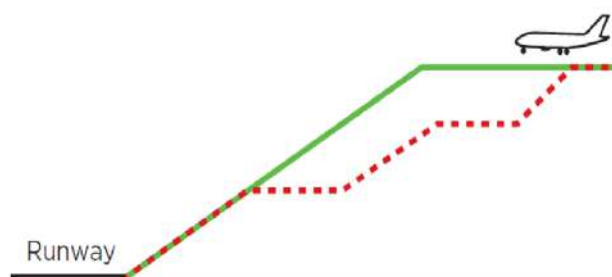
The following text appears in the UK AIP Noise Abatement Procedures for Gatwick Airport:

EGKK AD 2.21 (10) *Where the aircraft is approaching the aerodrome to land it shall, commensurate with its ATC clearance, minimise noise disturbance by the use of continuous decent and low power, low drag operating procedures (referred to in Detailed Procedures for descent clearance in EGKK AD 2.22 of the UK AIP). 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 in 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. This is to avoid prolonged periods of level flight and keep aircraft as high as possible for as long as possible.*

*As a result of the Independent Review of Arrivals, it was recommended (Imm-05) that the CDO monitoring altitude be increased from 6,000ft to 7,000ft as of 1st August 2016.

It should be noted that the Casper NTK system experienced two radar outages between 11th and 12th July and 10th and 13th August inclusive which means data has had to be omitted from the figures for these dates.

It should be noted that due to the termination of the Casper NTK system on 31st March 2019, the figures for Q1 2019 only cover 1st January – 30th March 2019 inc.

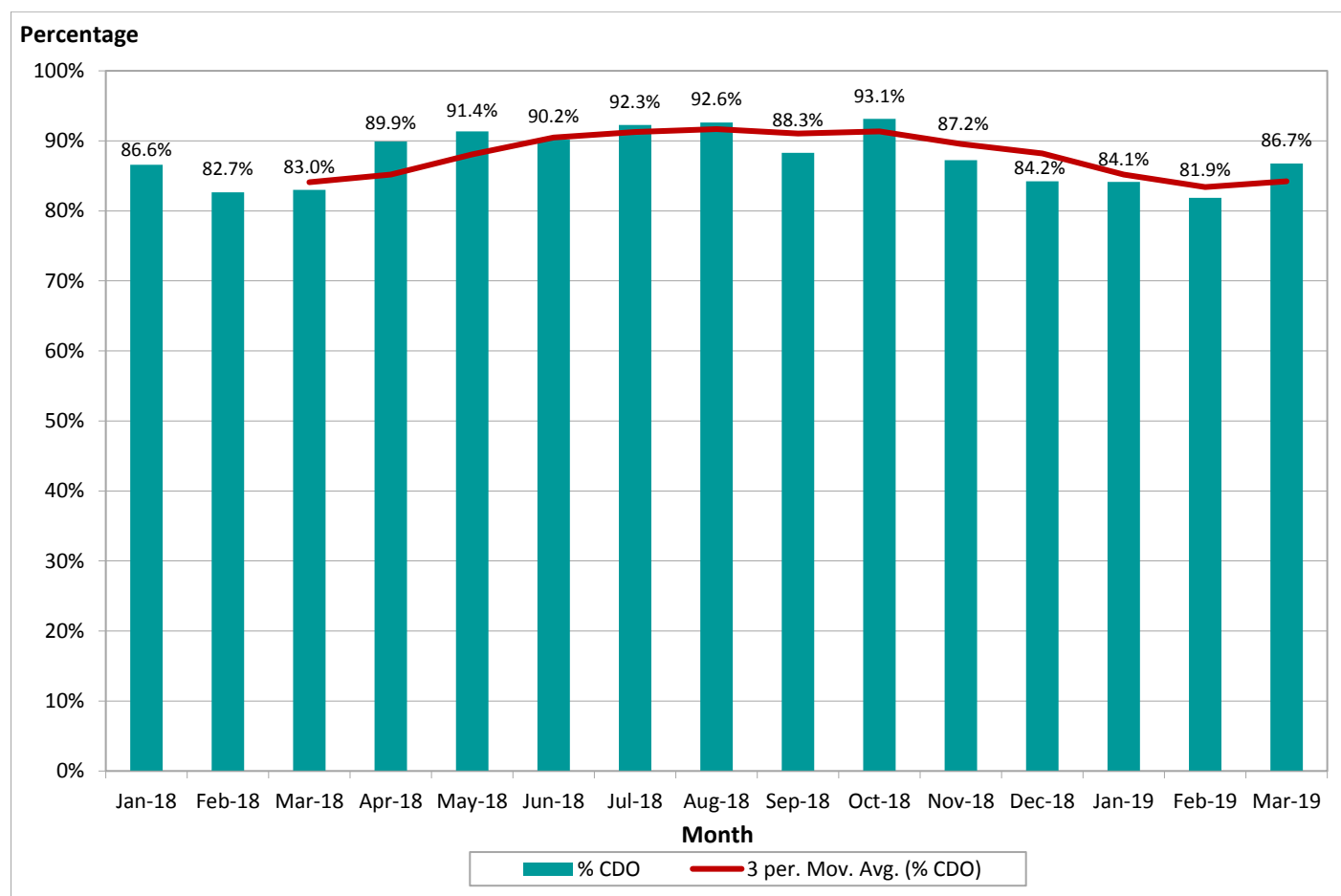


CORE NIGHT PERIOD (2330-0600)

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO CORE NIGHT TIME PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Jan-18	291	39	86.60%	91	11	87.91%	200	28	86.00%
Feb-18	300	52	82.67%	150	21	86.00%	150	31	79.33%
Mar-18	547	93	83.00%	254	36	85.83%	293	57	80.55%
Apr-18	890	90	89.89%	425	23	94.59%	465	67	85.59%
May-18	1331	115	91.36%	841	60	92.87%	490	55	88.78%
Jun-18	1667	164	90.16%	945	63	93.33%	722	101	86.01%
Jul-18	1755	136	92.25%	502	45	91.04%	1253	91	92.74%
Aug-18	1561	115	92.63%	173	8	95.38%	1388	107	92.29%
Sep-18	1569	184	88.27%	526	51	90.30%	1043	133	87.25%
Oct-18	1122	77	93.14%	416	25	93.99%	706	52	92.63%
Nov-18	329	42	87.23%	185	23	87.57%	144	19	86.81%
Dec-18	437	69	84.21%	117	15	87.18%	320	54	83.13%
Jan-19	315	50	84.13%	66	6	90.91%	249	44	82.33%
Feb-19	364	66	81.87%	106	18	83.02%	258	48	81.40%
Mar-19	445	59	86.74%	55	6	89.09%	390	53	86.41%

THE GRAPH BELOW ILLUSTRATES THE CORE NIGHT TIME CDO COMPLIANCE WITH A TREND LINE

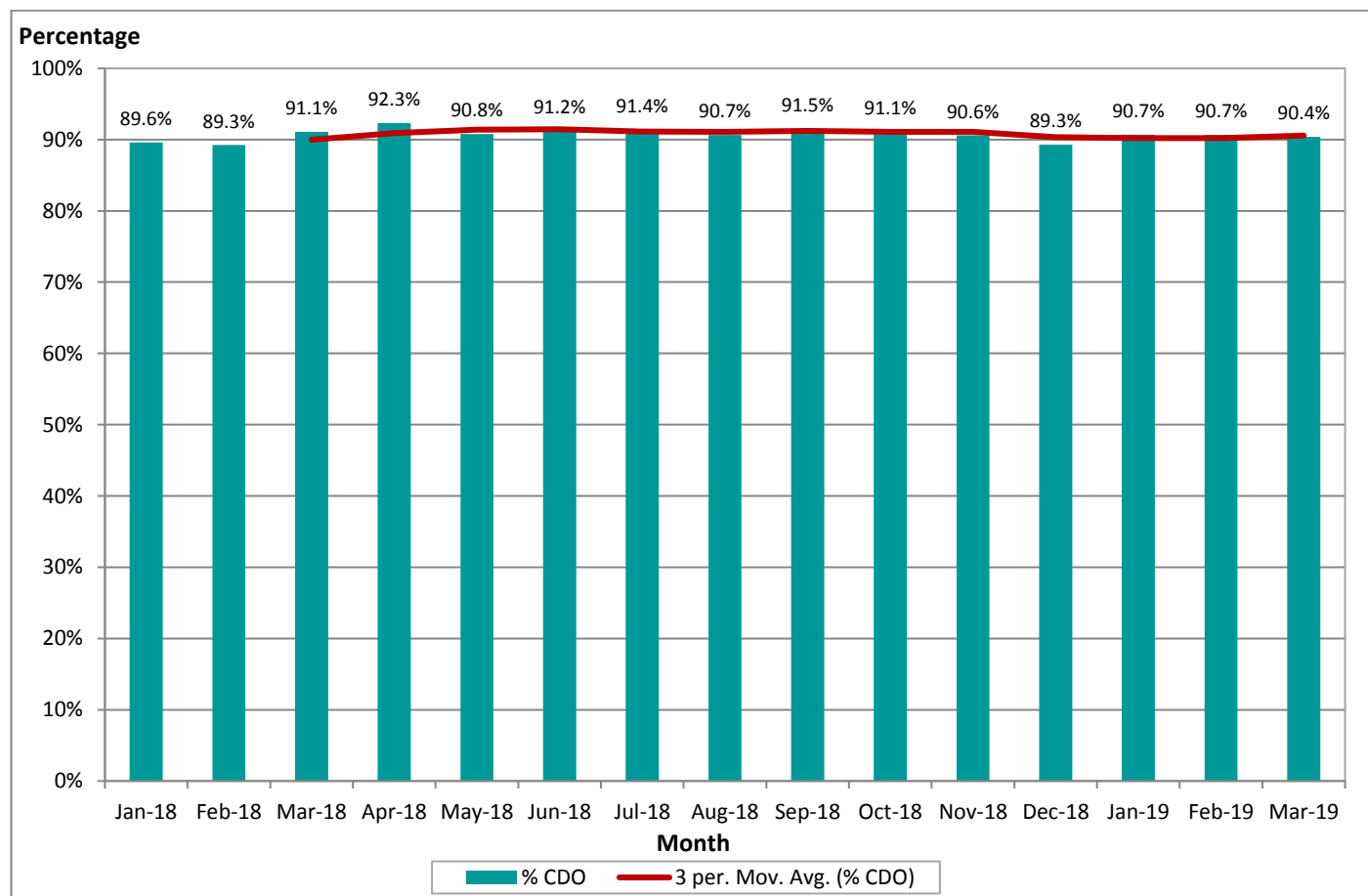


DAYTIME AND SHOULDER PERIOD CDO ACHIEVEMENT (0600-2330)

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO DAYTIME AND SHOULDER PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Jan-18	9264	965	89.58%	2311	219	90.52%	6953	746	89.27%
Feb-18	9279	997	89.26%	4136	453	89.05%	5143	544	89.42%
Mar-18	10503	935	91.10%	4826	461	90.45%	5677	474	91.65%
Apr-18	10847	831	92.34%	4221	312	92.61%	6626	519	92.17%
May-18	11443	1053	90.80%	7113	407	94.28%	4330	346	92.01%
Jun-18	11648	1023	91.22%	6042	542	91.03%	5606	481	91.42%
Jul-18	11296	967	91.44%	3551	286	91.95%	7745	681	91.21%
Aug-18	10714	1001	90.66%	1272	129	89.86%	9442	872	90.76%
Sep-18	11903	1012	91.50%	3464	324	90.65%	8439	688	91.85%
Oct-18	11434	1017	91.11%	4103	382	90.69%	7331	635	91.34%
Nov-18	9340	876	90.62%	4591	393	91.44%	4749	483	89.83%
Dec-18	9770	1045	89.30%	2304	216	90.63%	7466	829	88.90%
Jan-19	9568	891	90.69%	2081	162	92.22%	7487	729	90.26%
Feb-19	9596	897	90.65%	2688	216	91.96%	6908	681	90.14%
Mar-19	10494	1009	90.38%	1170	72	93.85%	9324	937	89.95%

THE GRAPH BELOW ILLUSTRATES THE DAY & SHOULDER CDO COMPLIANCE WITH A TREND LINE

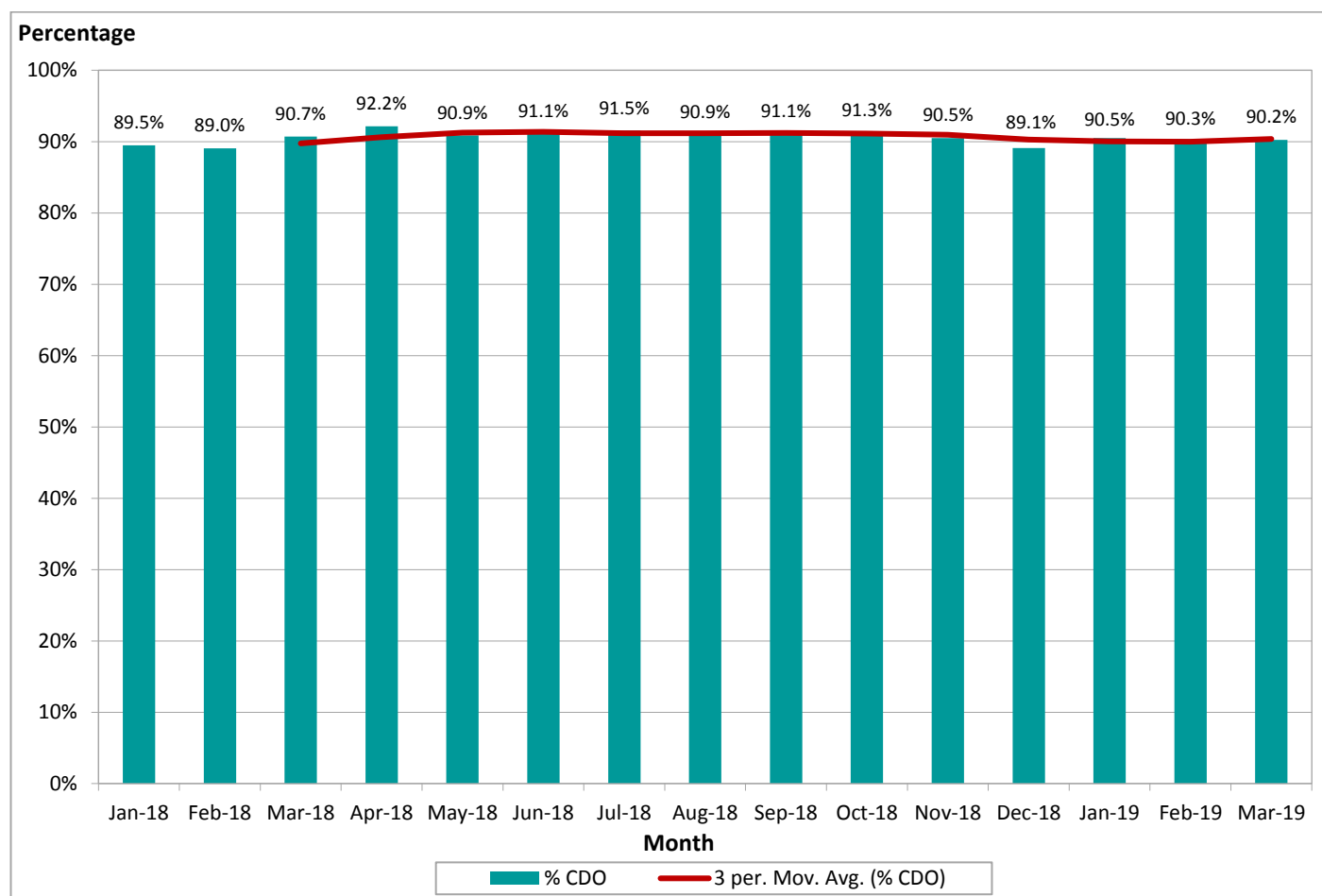


24 HOUR PERIOD CDO ACHIEVEMENT

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO 24 HOUR TIME PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Jan-18	9555	1004	89.49%	2402	230	90.42%	7153	774	89.18%
Feb-18	9579	1049	89.05%	4286	474	88.94%	5293	575	89.14%
Mar-18	11050	1028	90.70%	5080	497	90.22%	5970	531	91.11%
Apr-18	11737	921	92.15%	4646	335	92.79%	7091	586	91.74%
May-18	12774	1168	90.86%	7954	767	90.36%	4820	401	91.68%
Jun-18	13315	1187	91.09%	6986	605	91.34%	6329	582	90.80%
Jul-18	13051	1103	91.55%	4053	331	91.83%	8998	772	91.42%
Aug-18	12275	1116	90.91%	1445	137	90.52%	10830	979	90.96%
Sep-18	13472	1196	91.12%	3990	375	90.60%	9482	821	91.34%
Oct-18	12556	1094	91.29%	4519	407	90.99%	8037	687	91.45%
Nov-18	9669	918	90.51%	4776	416	91.29%	4893	502	89.74%
Dec-18	10207	1114	89.09%	2421	231	90.46%	7786	883	88.66%
Jan-19	9883	941	90.48%	2147	168	92.18%	7736	773	90.01%
Feb-19	9960	963	90.33%	2794	234	91.62%	7166	729	89.83%
Mar-19	10939	1068	90.24%	1225	78	93.63%	97.14	990	89.81%

THE GRAPH BELOW ILLUSTRATES THE 24 HOUR PERIOD CDO COMPLIANCE WITH A TREND LINE



Arrivals – Over Congested Areas

OVERFLIGHT OF CONGESTED AREAS

AD 2-EGKK1-12 (11) *Before landing at the aerodrome the aircraft shall maintain as high an altitude as practicable and shall not fly over the congested areas of Crawley, East Grinstead, Horley and Horsham at an altitude of less than 3,000ft (Gatwick QNH) nor over the congested area of Lingfield at an altitude of less than 2,000ft (Gatwick QNH).*

N.B. $2,000\text{ft} - (202\text{ft (airfield elevation)} + 100\text{ft (radar/ILS tolerance)}) = 1,698\text{ft}$ on Airports Noise & Aircraft Tracking System

Comment: There were no arriving flights which passed over the towns of Crawley, Horley or East Grinstead other than a small number of go-arounds. The map overleaf illustrates these analysis zones. A polygon located over the urban area

at about 7 nautical miles (NM) from touchdown is normally used to analyse tracks over the Lingfield area.

During the analysis period, there were a total of 33 arrivals that passed through this area. Aircraft tracks were analysed for January, February and March 2019 and there were no flights which passed over Lingfield below the altitude of 1,698ft (2,000ft Gatwick QNH).

It should be noted that the Casper NTK system experienced two radar outages between 11th and 12th July and between 10th and 13th August inclusive which means data has had to be omitted from the figures for these dates.

A) DAY TIME JOINING HEIGHT (0700-2300)

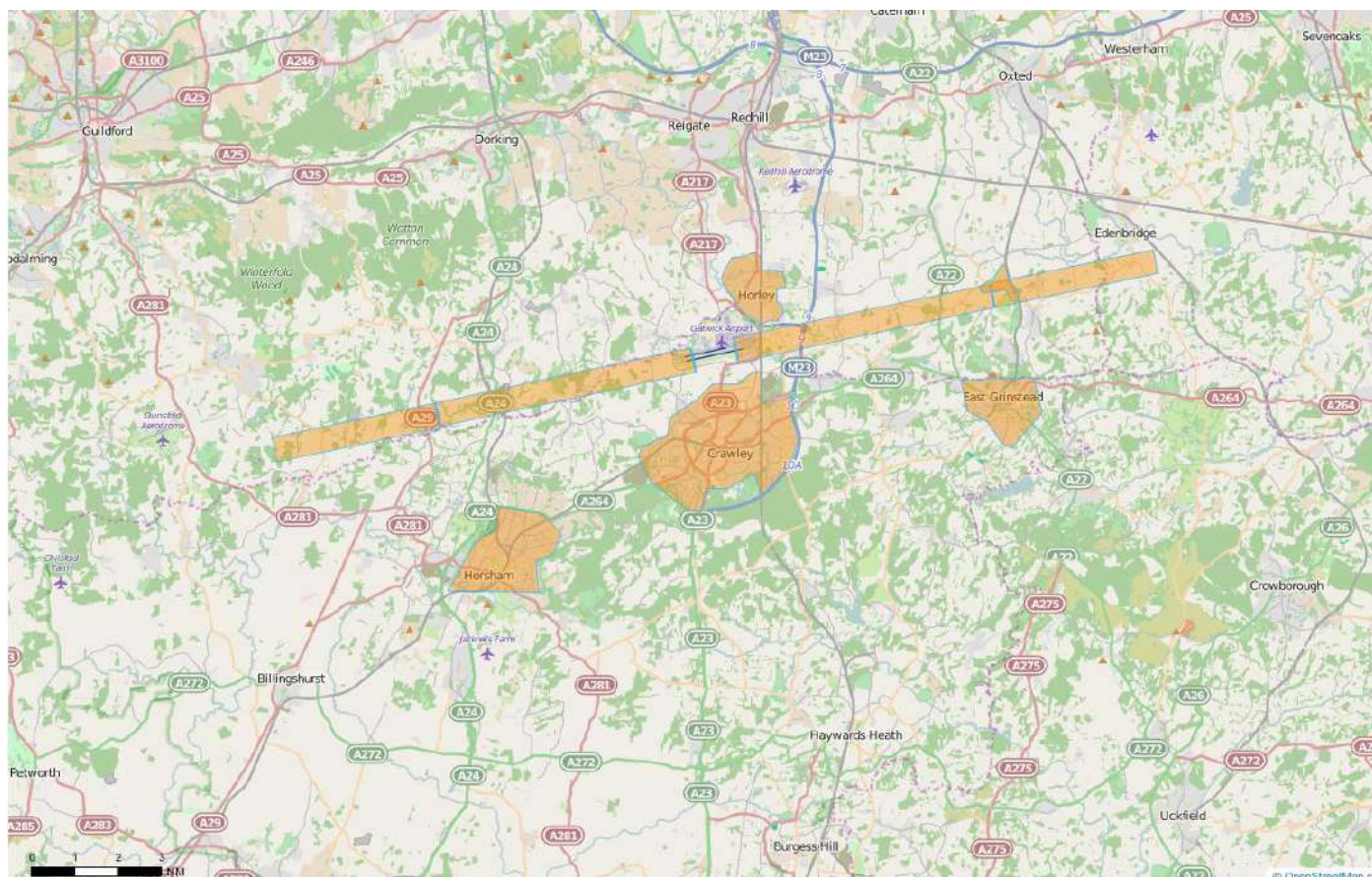
EGKK AD 2.21 (13(a)) *Where the aircraft is using the ILS in IMC or VMC it shall not descend below 2,000ft (Gatwick QNH) before intercepting the glidepath, nor thereafter fly below the glidepath. This is aimed at keeping aircraft as high as possible for as long as possible.*

The map below shows the congested urban areas, a series of gates running parallel to the extended runway centreline for around 6NM east and west of the airport, used to monitor low arrivals, joining the ILS below 2,000ft.

There were 30,976 arrivals recorded by ATC between 1st January and 30th March 2019. Of these, the number of arrivals that were operating below an altitude of 2,000ft (equivalent to a height in the NTK system of 1,798ft) through one or more of the analysis gates was 152 (0.49%). In addition, there were 31 go-arounds that were not included in this figure. This figure is a sum of both easterly and westerly arrivals joining the ILS.

It should be noted that due to the termination of the Casper NTK system on 31st March 2019, the figures for Q1 2019 only cover 1st January – 30th March 2019 inc.

THE FOLLOWING MAP ILLUSTRATES THE ANALYSIS ZONES USED FOR LATE AND LOW ARRIVALS FOR BOTH ENDS OF THE AIRFIELD AND THE CONGESTED URBAN AREAS



B) NIGHT TIME JOINING HEIGHT AND DISTANCE (2300-0700)

EGKK AD 2.21 (14) Aircraft which land at Gatwick Airport - London between the hours of 2300 (local) and 0700 (local), whether or not making use of the ILS localizer and irrespective of weight or type of approach, shall not join the centre-line:

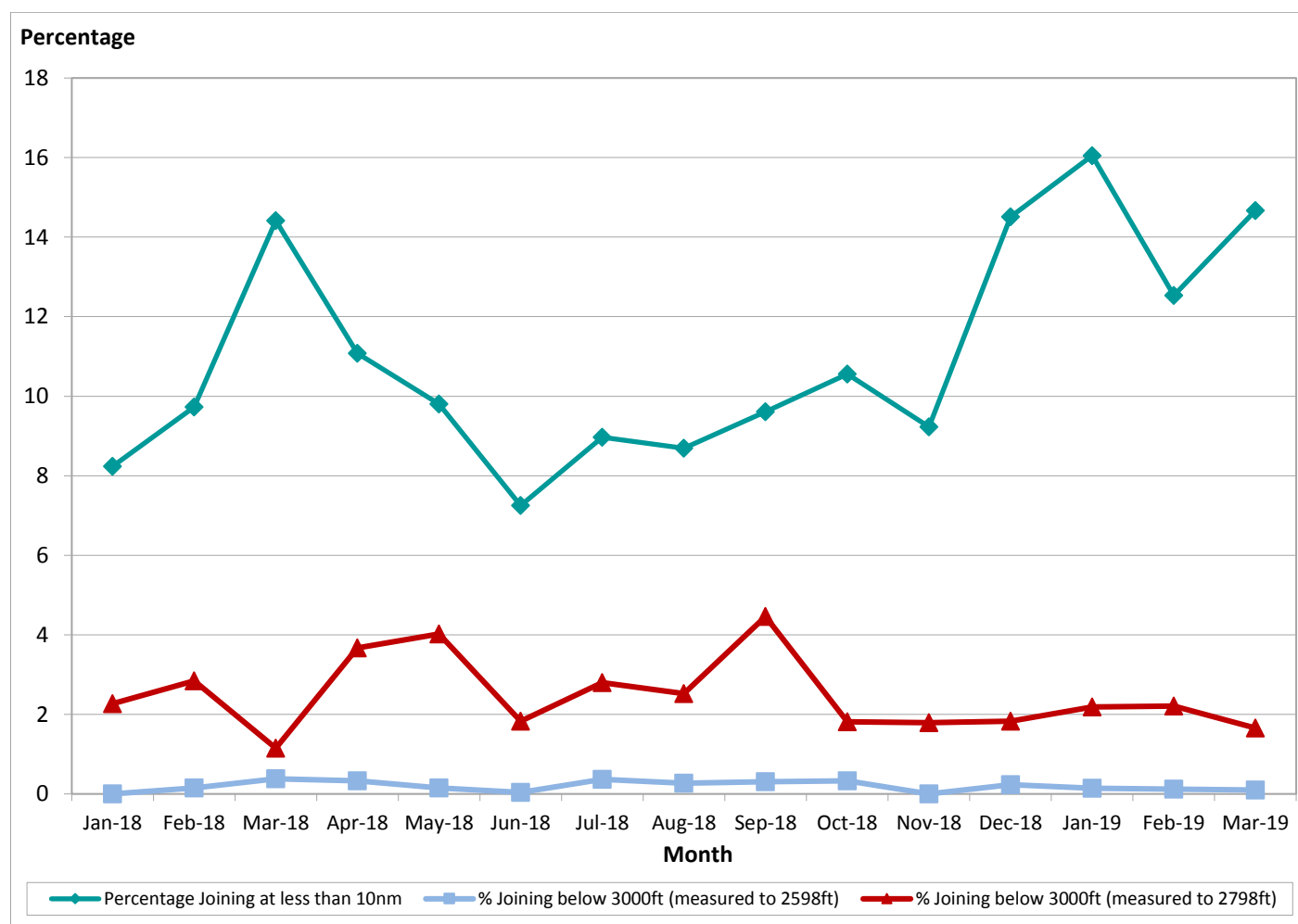
- a) below 3000ft, or
- b) closer than 10 nm from touchdown.

This aims to keep aircraft higher for longer and avoid overflying areas en route to the ILS below 3,000ft.

During standby runway operations, usually at night during maintenance of the main runway, the threshold is in a different location than the main runway (a different radar map is used for the extended centreline) so the 10 nautical mile (NM) marker is in a slightly different location. As we are complying with 10NM on the standby runway, this may be flagged as a join inside 10NM on the main runway. This means the percentage joining below 10NM may be slightly higher in recent months as there has been an increased use of standby runway operations at night.

It should be noted that the Casper NTK system experienced two radar outages between 11th and 12th July and 10th and 13th August inclusive which means data has had to be omitted from the figures for these dates.

THE GRAPH BELOW ILLUSTRATES THE NIGHT TIME JOINING POINTS OVER THE 15 MONTH PERIOD



N.B. 3,000ft (Gatwick QNH) – 202ft (airfield elevation) = 2,798ft on Airports Noise & Track Keeping System

3,000ft (Gatwick QNH) – 202ft (airfield elevation) – 200ft ATC radar tolerance = 2,598ft on Airports Noise & Track Keeping System

Go-Around Statistics 2004 - 2019

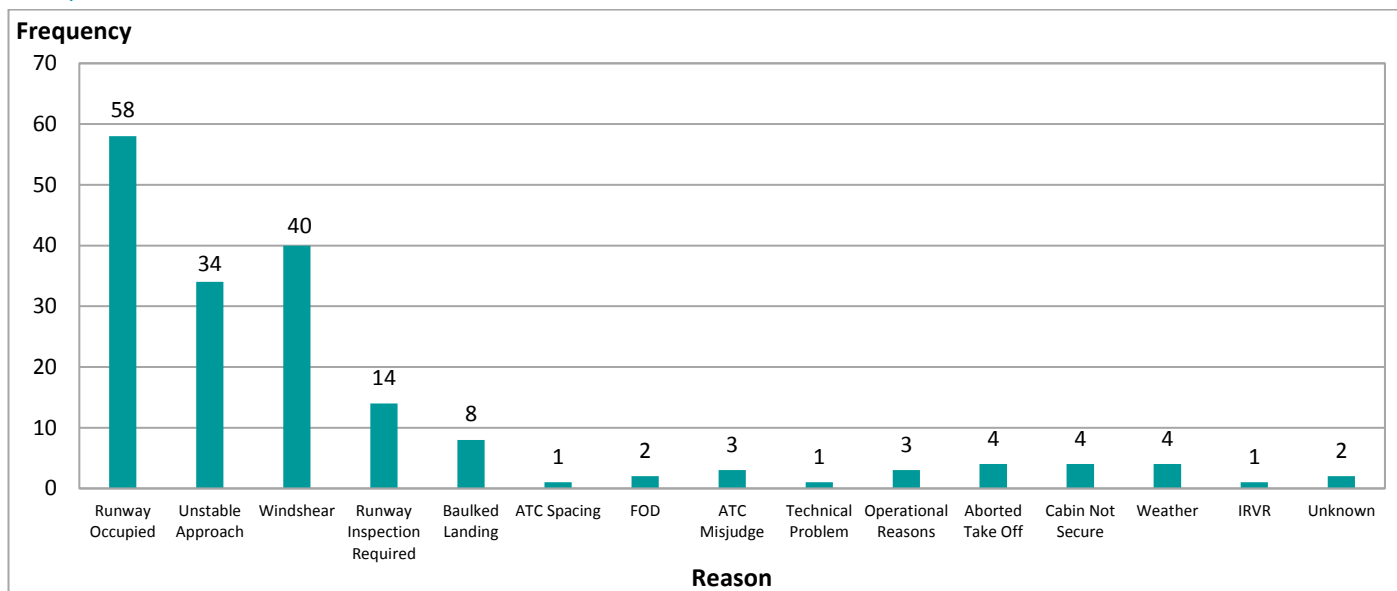
A go-around is a procedure adopted when an arriving aircraft on final approach aborts landing by applying take off power and climbing away from the airport. It is a set procedure to be followed by the flight crew in the event of an aircraft being unable to land. The procedure is published so that ATC and the pilots can anticipate where the aircraft will go following the decision to go-around.

The standard missed approach procedure applicable to Gatwick Airport requires aircraft that are aborting their approach to climb to 3,000ft straight ahead, then, on passing 2,000ft or 1DME (distance measuring equipment) (whichever is later), turn heading 180. This may or may not result in aircraft overflying the town of Crawley or outlying areas.

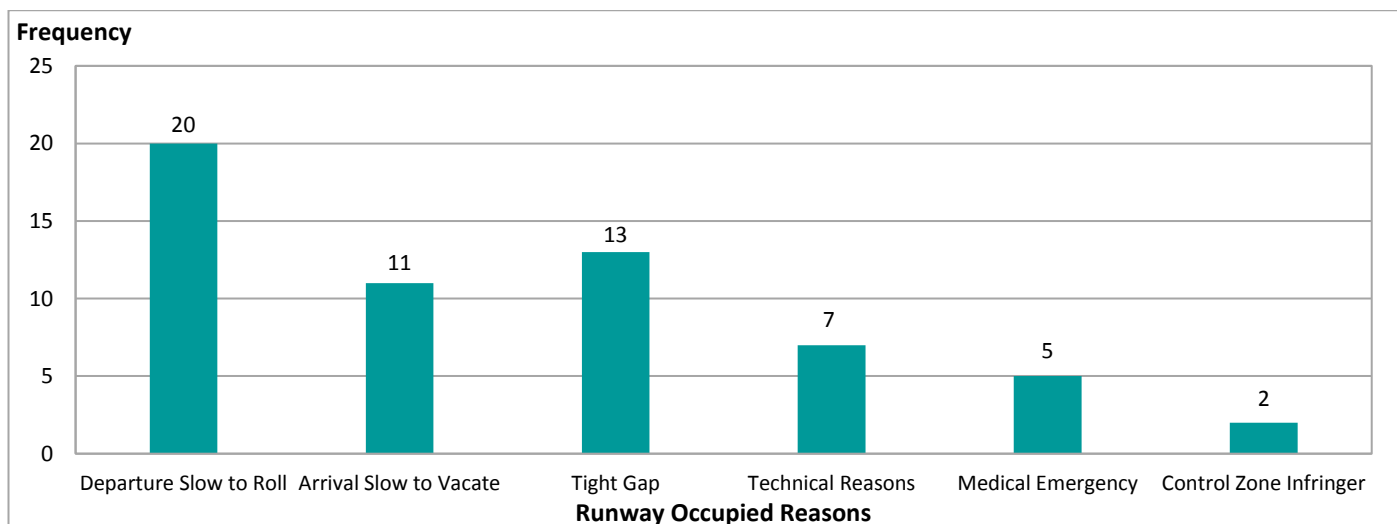
The number and reasons for go-arounds are routinely discussed at FLOPSC meetings and Pilot Forums. All parties are focussed on minimising the number of occasions when a go-around is required, but expect some to occur given the fact that Gatwick is a busy single runway airport.

It should be stated that there are well established standard procedures which both pilots and controllers are trained in and are familiar with. Gatwick Airport Limited, as the airport operator, actively encourages airlines operating at the airport to fly to the best possible environmental standards; however, safety must and always will be the number one priority.

ANS CURRENTLY RECORD GO-AROUNDS UNDER ONE OF THE FOLLOWING CAUSAL FACTORS (JANUARY – MARCH 2019)



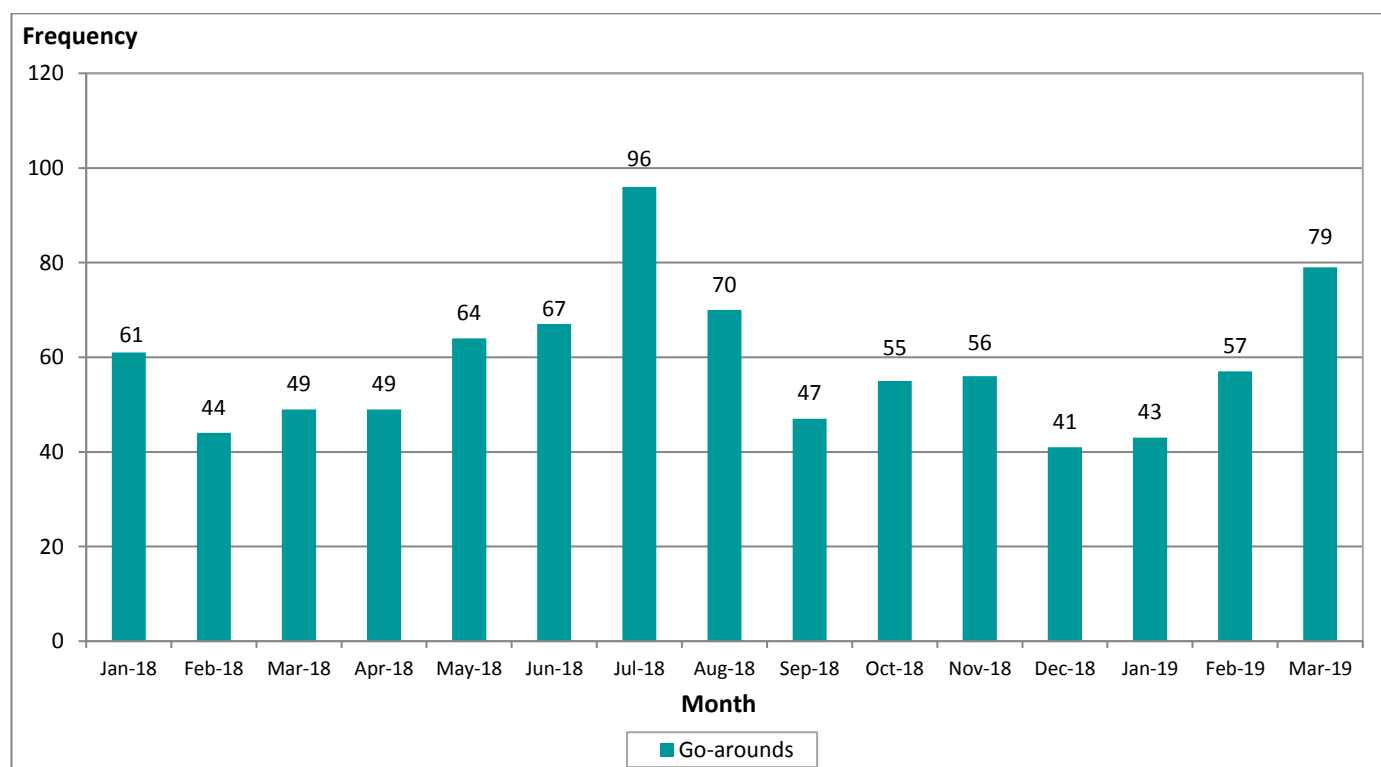
THE REASONS GIVEN BY ANS FOR GO-AROUNDS DUE TO RUNWAY OCCUPANCY DURING THE THREE MONTH PERIOD



THE TABLE BELOW ILLUSTRATES GO-AROUND STATISTICS 2004 – 2019

Year	Total	Total Arrivals	% of Arrivals
2004	344	124665	0.28
2005	450	129509	0.35
2006	405	130954	0.31
2007	434	133271	0.33
2008	359	131858	0.27
2009	455	125861	0.36
2010	364	120263	0.30
2011	386	125541	0.31
2012	520	123408	0.42
2013	473	125290	0.38
2014	512	129966	0.39
2015	520	133869	0.39
2016	642	139998	0.46
2017	618	142956	0.43
2018	699	141950	0.49
2019 (Jan-Mar)	179	31176	0.57

THE GRAPH BELOW ILLUSTRATES TOTAL NUMBER OF GO-AROUNDS PER MONTH



Night Flights

The Secretary of State, in exercise of his powers under Section 78 of the Civil Aviation Act 1982, has imposed restrictions at Gatwick Airport on aircraft operating at night. These restrictions are in place to limit and mitigate noise disturbance from aircraft operating at night and to prohibit aircraft of specified descriptions from operating, and also to limit the number of occasions on which other aircraft may take off or land.

The night flying restrictions are divided into summer and winter seasons which coincide with the start and end of British Summer Time. They consist of a movement limit and a quota count system. The quota count (QC) means that points are allocated to different aircraft types according to how noisy they are. The noisier the aircraft type, the higher the points allocated. This provides an incentive for airlines to use quieter aircraft types. Aircraft are certified by ICAO according to the noise they produce and are classified separately for both take off and landing.

For the purposes of night flying operations, the night quota period is defined as the period between 2330-0600 (local time). In addition, there are two further shoulder periods of 2300–2330 and 0600–0700 (local time), where other restrictions apply to the scheduling and operation of aircraft of specified descriptions.

The current restrictions on night flying came into force in October 2017, to remain in place until 2022 for all the London Airports. At Gatwick, this regime maintained the status quo for movements and QC until the Winter 2018/19 season. This season sees a reduction in the QC limit and a new QC value of 0.125 applied to some aircraft which were classified as QC0. As of October 2017, all aircraft movements have counted towards the night quota limit, including those previously exempt. This will further incentivise the use of quieter aircraft as an Airport can continue the use of its movement allowance but the average noise produced by an aircraft cannot increase.

RESTRICTIONS

Winter	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Movements	3250	3250	3250	3250	3250	3250
Limits						
Quota Points	2000	2000	1785	1785	1785	1785

Summer	2017	2018	2019	2020	2021	2022
Movements	11200	11200	11200	11200	11200	11200
Limits						
Quota Points	6200	6200	5150	5150	5150	5150

Overleaf is an end of season report for Winter 2018/19 which commenced at 02:00 on the 28th October 2018 and ended at 01:00 on the 31st March 2019. The total number of movements available for the winter season was 3250.

DISPENSATIONS

In accordance with the DfT guidelines, there may be times when an aircraft can be disregarded from the night flight restrictions. As a general rule these are unforeseen circumstances outside the control of either the Airport or Airline resulting in the unscheduled use of a night slot. Examples of such instances include humanitarian relief flights, emergencies, VIP visits, delays as a result of disruption leading to passenger hardship, ATC disruption or airspace closure caused by a volcanic ash cloud. The rules related to dispensations are strictly adhered to and all instances are reported to the DfT within 7 days.

There have been 135 dispensations applied during this winter season. The reasons were as follows:

- 55 dispensations were granted due to prolonged disruption caused by adverse weather conditions.
- 66 dispensations were granted as a direct result of the disruption caused by the drone incident on 19th/20th December.
- And 14 dispensations were granted due to ATC flow restrictions in place to aid recovery from that incident.

QC4, QC8 and QC16 MOVEMENTS

There have been no QC8 or QC16 movements during either the night quota or shoulder periods. These QC values are not to be scheduled to take off or land between 2300 and 0700. There were no unscheduled QC4 movements during the night quota period. QC4 types may not be scheduled to take off or land during this period.

London Gatwick

AIRPORT MOVEMENTS and QUOTA SUMMARY to WEEK 22 (28 OCTOBER 2018 to 30 MARCH 2019 inc.)

Season Quota Points Limit 1785 Season Movement Limit 3250
Total Quota Points Allowed 1785 Total Movements Allowed 3250

Wk No.	Week Ending Date	QC0 No.	QC0.125 No.	QC0.25 No.	QC0.5 No.	QC1 No.	QC2 No.	QC4 No.	QC8 No.	QC16 No.	Total Quota Value	Mvmnts Against Limit	Not Cont'd Delays	Not Cont'd Gov't	Not Cont'd Emerg	Total Arrivals No.	Total Arrivals %	Total Deps No.	Total Deps %	Total Runway Mvmnts
1	03/11/2018	1	5	78	74	26	4	0	0	0	91.125	188	0	0	0	167	88.8	21	11.2	188
2	10/11/2018	0	6	19	40	20	3	0	0	0	51.5	88	0	0	0	75	85.2	13	14.8	88
3	17/11/2018	0	2	30	36	21	1	0	0	0	48.75	90	20	0	0	92	83.6	18	16.4	110
4	24/11/2018	2	0	23	35	17	2	0	0	0	44.25	79	0	0	0	67	84.8	12	15.2	79
5	01/12/2018	0	2	21	33	18	2	0	0	0	44	76	0	0	0	63	82.9	13	17.1	76
6	08/12/2018	0	1	26	37	18	3	0	0	0	49.125	85	0	0	0	71	83.5	14	16.5	85
7	15/12/2018	1	3	33	49	22	2	0	0	0	59.125	110	0	0	0	93	84.5	17	15.5	110
8	22/12/2018	0	0	28	28	21	3	0	0	0	48	80	0	66	0	116	79.5	30	20.5	146
9	29/12/2018	0	1	42	53	24	1	0	0	0	63.125	121	23	0	0	117	81.2	27	18.8	144
10	05/01/2019	1	1	40	47	16	3	0	0	0	55.625	108	0	0	0	94	87.0	14	13	108
11	12/01/2019	2	3	25	46	17	2	0	0	0	50.625	95	0	0	0	79	83.2	16	16.8	95
12	19/01/2019	0	0	26	37	19	3	0	0	0	50	85	0	0	0	74	87.1	11	12.9	85
13	26/01/2019	0	2	15	32	18	1	0	0	0	40	68	0	0	0	56	82.4	12	17.6	68
14	02/02/2019	0	0	29	33	16	4	0	0	0	47.75	82	0	0	0	70	85.4	12	14.6	82
15	09/02/2019	0	3	49	37	16	2	0	0	0	51.125	107	0	0	0	94	87.9	13	12.1	107
16	16/02/2019	0	8	36	41	20	3	0	0	0	56.5	108	0	0	0	94	87.0	14	13	108
17	23/02/2019	2	3	36	35	17	1	0	0	0	45.875	94	0	0	0	82	87.2	12	12.8	94
18	02/03/2019	4	0	37	54	18	4	0	0	0	62.25	117	0	0	0	99	84.6	18	15.4	117
19	09/03/2019	0	3	40	51	19	3	0	0	0	60.875	116	14	0	0	118	90.8	12	9.2	130
20	16/03/2019	0	5	52	45	23	3	0	0	0	65.125	128	12	0	0	122	87.1	18	12.9	140
21	23/03/2019	1	5	39	43	17	4	0	0	0	56.875	109	0	0	0	92	84.4	17	15.6	109
22	30/03/2019	1	2	28	45	20	3	0	0	0	55.75	99	0	0	0	88	88.3	11	11.7	99
TOTALS		15	55	752	931	423	57	0	0	0	1197.375	2233	69	66	0	2023	85.4	345	14.6	2368

Quota Points Available 587.625 Movements Available 1017
Quota % Points Used 67.0 Movements % Used 68.7

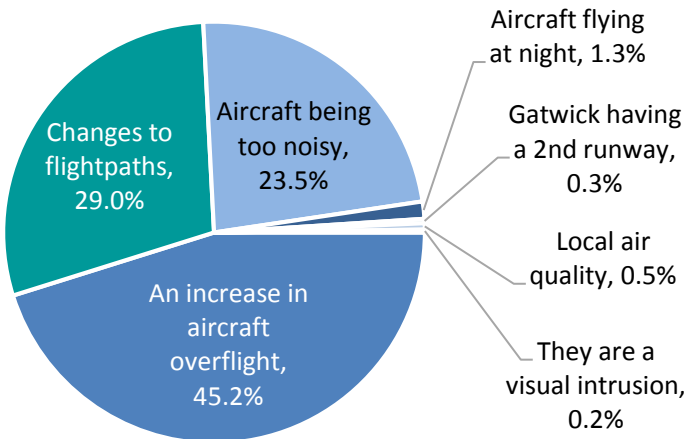
Note 1 Not Cont'd Delays Delays likely to lead to serious congestion and delays resulting from widespread disruption of Air Traffic.
Note 2 Not Cont'd Gov't Exemptions granted by Gov't (VIP Passengers, Emergency Relief).
Note 3 Not Cont'd Emerg Emergency Take-offs and Landing

Noise Complaints

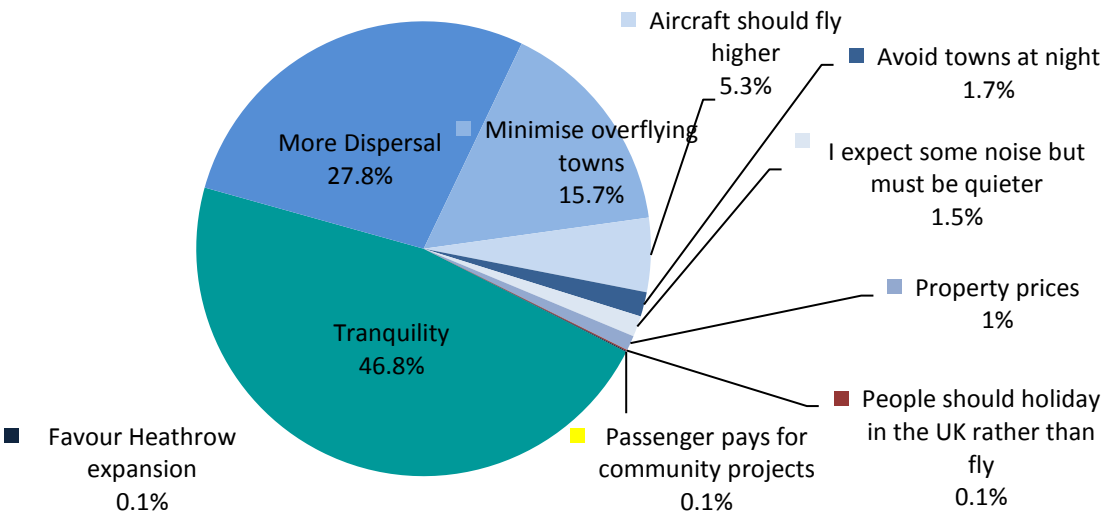
It is important that we understand the issues of noise disturbance from individuals and communities who live around the Airport. By studying the complaints we receive and by communicating with the affected towns and villages surrounding the Airport, we believe that this gives us a greater understanding of the issues related to noise.

This means that we can work together to improve the noise climate around the Airport. The complaints we have received are either about specific aircraft events that cause disturbance or generic complaints about airport operations in general. The following charts provide an analysis of the reasons for the numbers of complaints.

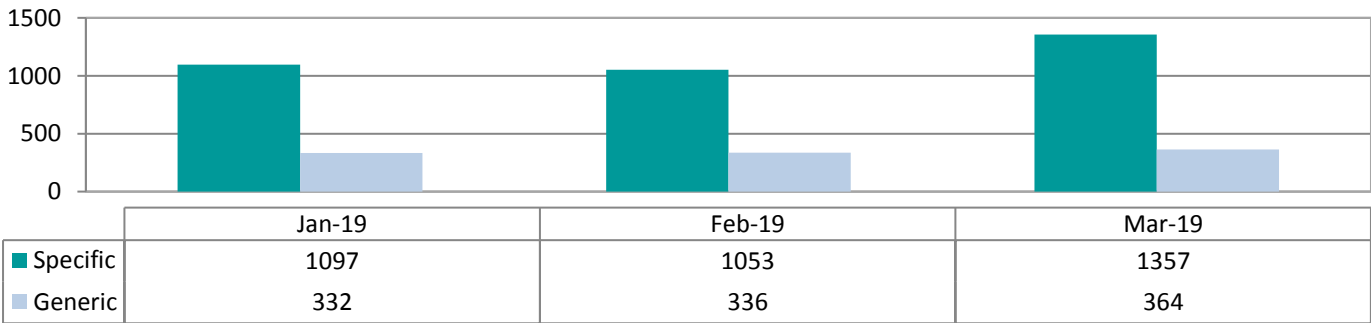
PERCENTAGE OF COMPLAINT OBSERVATIONS MOST AGREED WITH



PERCENTAGE OF COMPLAINT CONCERNS MOST AGREED WITH



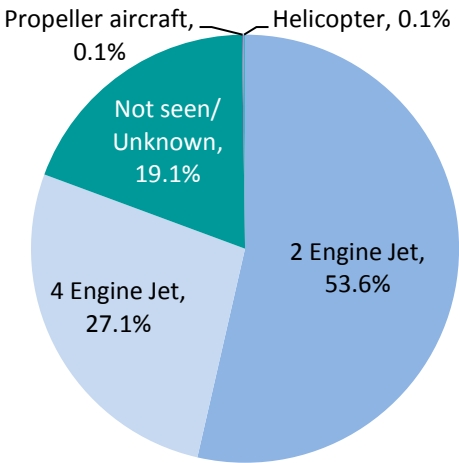
COMPLAINTS RECORDED BY MONTH – WEB ONLY



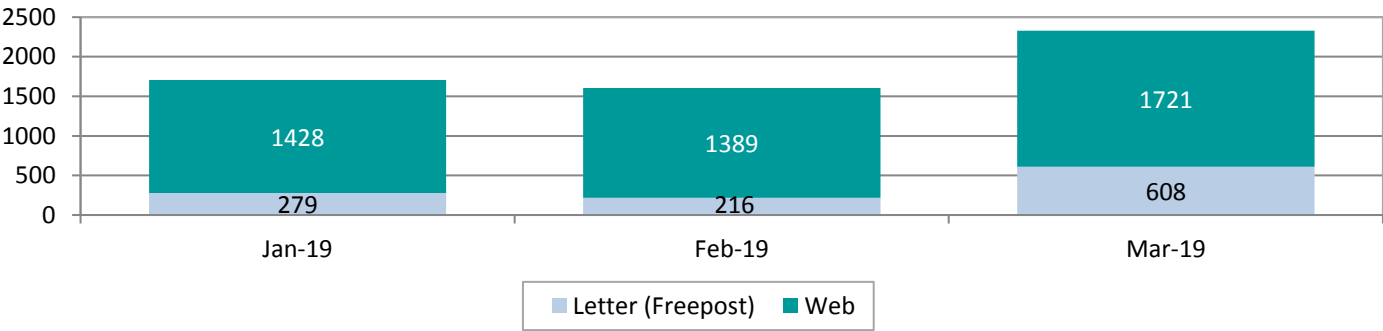
Noise is very subjective and can affect people in different ways. Some people can tolerate a certain noise level whilst it can cause disturbance to others. As well as identifying the issues of noise, it is important to understand the location of each individual complaint.

The charts below provide further analysis of the categories of aircraft types and the method of complaint and the location of individual complainants.

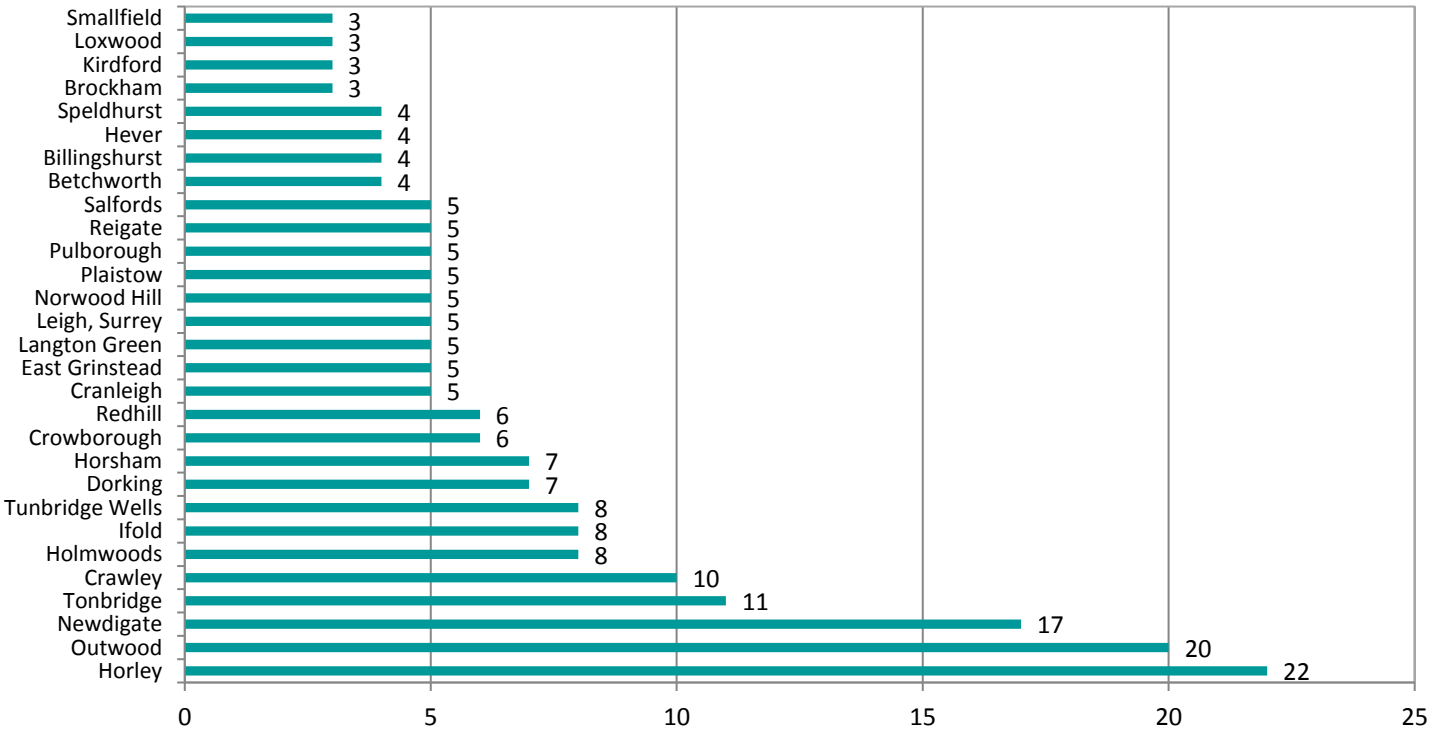
CATEGORIES OF AIRCRAFT TYPES FROM SPECIFIC COMPLAINTS



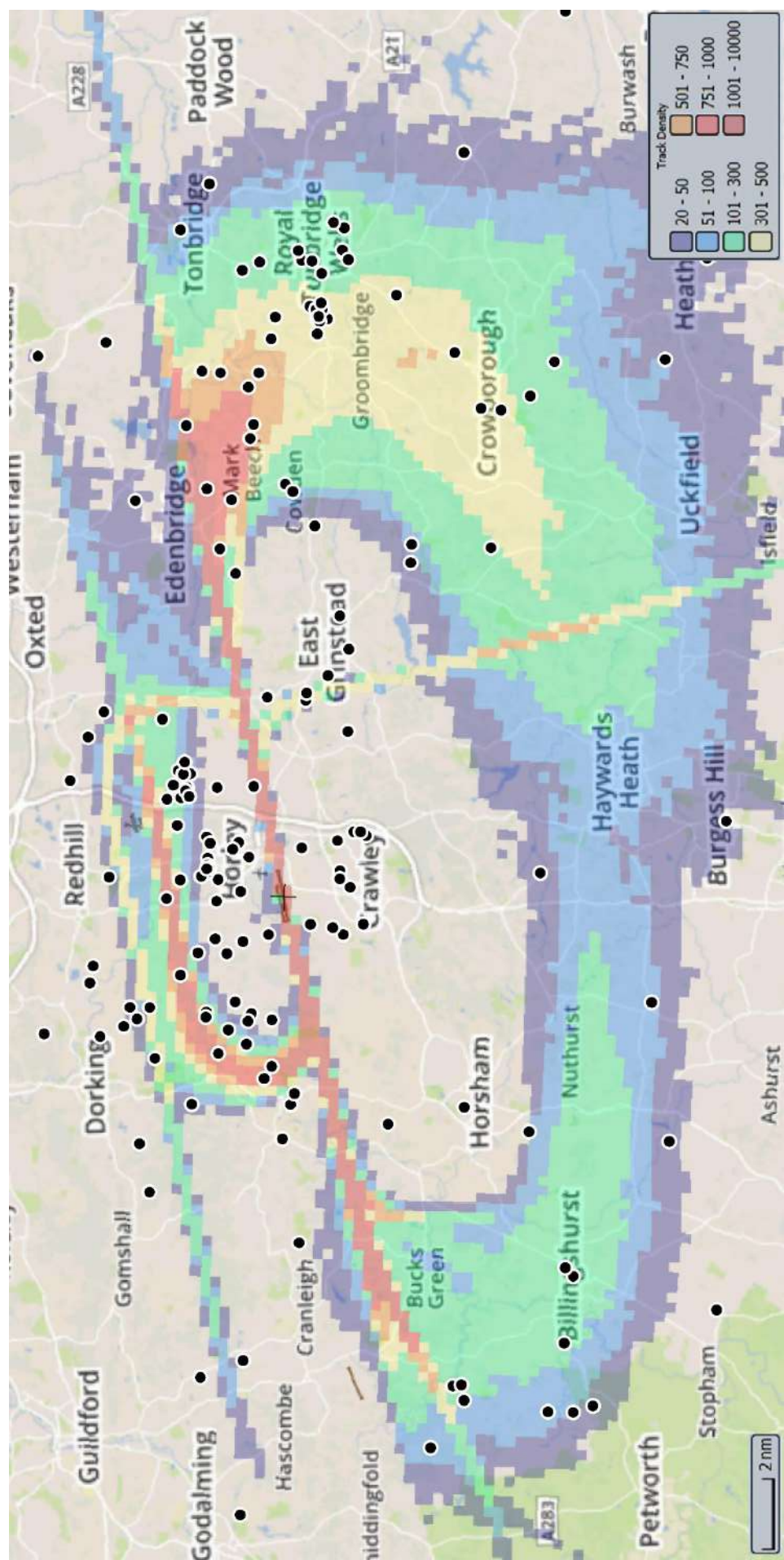
METHOD OF COMPLAINT



NUMBER OF INDIVIDUAL COMPLAINANTS BY TOWN/VILLAGE



THE MAP BELOW ILLUSTRATES THE LOCATION OF NOISE COMPLAINTS RECEIVED BETWEEN JANUARY AND MARCH 2019



Ground Noise Complaints

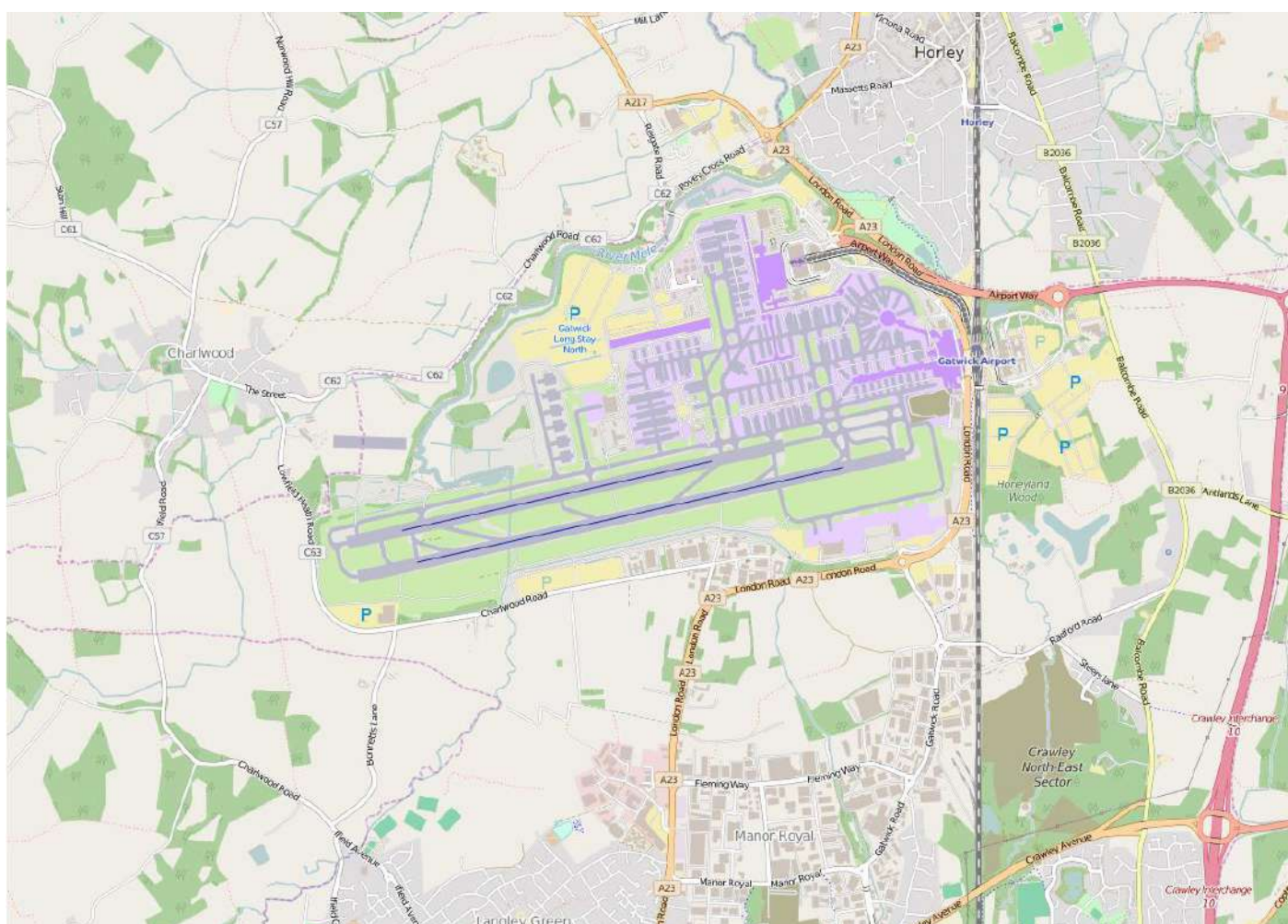
We occasionally receive complaints about disturbance from noise from within the boundary of the airfield. These can be caused by the normal operation of aircraft moving about the airfield, taking off and landing. Additional sources of noise disturbance can be the use of Auxiliary Power Units (APU) by aircraft on stand or the testing of engines following maintenance or repair (engine runs).

Strict regulations exist to minimise this disturbance, which includes a ban on engine running during the night. Details of any ground noise complaints are outlined below.

Comment:

There were no recorded ground noise complaints during this three month period.

THE MAP BELOW ILLUSTRATES THE GATWICK AIRPORT AIRFIELD



For more information visit us at: <http://www.gatwickairport.com/aircraftnoiseandairspace>

Glossary

ACoP – Arrivals Code of Practice

AIP – Aeronautical Information Publication

AMSL – Above Mean Sea Level

ANS – Air Navigation Solutions

APU – Auxiliary Power Unit - A small auxiliary engine on an aircraft used to provide electrical power when the main engines are shut down.

ATC – Air Traffic Control

CAA – Civil Aviation Authority

CDO – Continuous Descent Operations - A noise abatement procedure for arrivals used to avoid periods of level flight, reducing noise and emissions.

dBA – A-weighted decibels that takes closest account of human hearing. It is used to measure aircraft noise.

DfT – Department for Transport

DME – Distance measuring equipment

EGKK or **LGW** – London Gatwick Airport

FLOPSC – Flight Operations Performance and Safety Committee

FPT – Flight Performance Team

Go-Around – A go-around is an aborted landing of an aircraft which is on approach to the runway.

ICAO – International Civil Aviation Organisation

ILS – Instrument Landing System

IMC – Instrument Meteorological Conditions

KPI – Key Performance Indicators

Lmax – Maximum noise level

NATS – National Air Traffic Services

nm – Nautical Miles

NPR – Noise Preferential Route

NTK – Noise and Track Keeping monitoring system. Casper was replaced with ANOMS on 1st April 2019.

P-RNAV – Precision Route Navigation

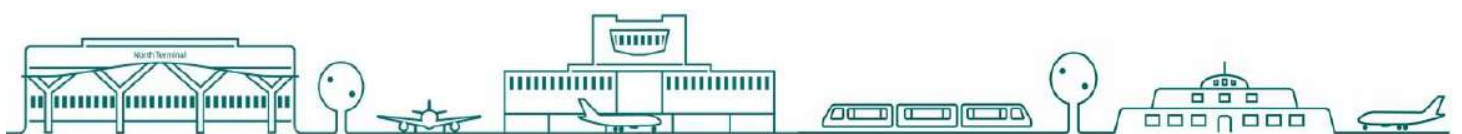
QC – Quota Count

QNH – The barometric pressure at sea level (QFE is the barometric pressure at the Airport).

SID – Standard Instrument Departure - A route out of UK airspace assigned to departing aircraft with an NPR in the first section.

Vectoring – Air Traffic Control procedure turning a departure off an NPR onto a more direct heading.

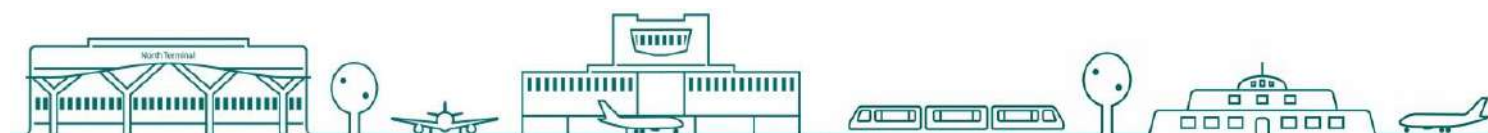
VMC – Visual Meteorological Conditions



YOUR LONDON AIRPORT
Gatwick

Gatwick Airport Flight Performance Report

This report covers the period
(1st April – 30th June 2019)



YOUR LONDON AIRPORT
Gatwick

Contents

Introduction 2

Runway Direction 4

The Aeronautical Information Publication 5

Departures - Noise Infringements 6

Departures - Initial Climb Performance..... 6

Departures - Track Keeping 8

Departures – Over Congested Areas 12

Arrivals – Continuous Descent Operations (CDO) 15

Arrivals – Over Congested Areas 19

Go-Around Statistics 21

Night Flights 23

Noise Complaints 26

Ground Noise Complaints 29

Glossary 30

Introduction

ABOUT THIS REPORT

This report is produced by the Gatwick Flight Performance Team (FPT). This team is responsible for recording, investigating and responding to aircraft noise enquiries as well as monitoring airline compliance to noise mitigation measures as detailed in the UK Aeronautical Information Publication (AIP). This department also actively engages with the airlines to improve their adherence to the above noise mitigation measures and in addition manages the night-time restrictions on flying at Gatwick.

This report contains detailed data on aircraft activity at Gatwick including the adherence to the noise mitigation measures detailed in the UK AIP, a report on night flying during the period, and an analysis of noise complaints received during the period.

KEY MONITORING INDICATORS – 1st APRIL – 30TH JUNE 2019

Parameter		12 month performance averages ¹			
		Year to date (2019) ⁷	Previous year (2018) ⁶	2011	2006
Track keeping performance (% on track)	▲	98.21%	98.10%	97.47%	98.17% ³
24hr CDO (% achievement) ⁴	▼	90.29%	90.64%	90.49%	80.79%
Day/Shoulder CDO (% achievement)	▼	90.34%	90.79%	90.19%	79.9%
Core night CDO (% achievement)	▼	89.71%	88.97%	93.96%	89.6%
1,000ft Infringements (No.)	-	0	0	3	11
1,000ft Infringements (No. below 900ft)	-	0	0	1	6
Departure Noise Infringements (Day)	▲	1	0	0	10
Departure Noise Infringements (Night/Shoulder)	-	0	0	4	2
Individual complainants	▼	753	952	343	587
Total noise complaints received ⁵	▲	26,364	18,845	2,673	4,791
Enquiry response performance target is 95% within 8 days (April to June 2019)	▼	49.00%	100%	KPI 95%	
West/East Runway Split (%)	-	67/33	71/29	67/33	68/32

¹ The colour indicates the most recent 12 month performance compared to the 2011 END Baseline, with green showing improvement and red a decline in performance, the directional arrow indicating performance compared to the previous 12 month performance.

² Track keeping statistics measurement changed on the 26th May 2016 due to the Route 4 amendment, all SID's are now included in the total figure.

³ This figure did not include deviations from prop types or those due to weather.

⁴ As a result of the Independent Review of Arrivals, it was recommended (Imm-05) that the CDO monitoring altitude be increased from 6,000ft to 7,000ft as of 1st August 2016.

⁵ Complaints are recorded in line with our published complaints handling policy. The revised policy, published in November 2014, advised that only one complaint per day is recorded per individual. On the 29th September 2016, there was a further revision to our complaints handling policy which now allows individuals to make multiple complaints per day and these will each be recorded. It is important to note that since January 2018, complaints which have been deleted from the NTK system are no longer counted in the complaint statistics when they had been previously. Complaints are only deleted if they contain abusive, obscene or threatening language.

⁶ It should be noted that there were two separate NTK radar outages to the Casper flight tracking system which occurred between the 11th and 12th July 2018 and between 10th and 13th August 2018 inclusive. As a result of these outages, data has been omitted from the statistics for these dates and so these figures may not be exact for the period. Complaint data is unaffected.

⁷ It should be noted that due to the termination of the Casper NTK system on 31st March 2019, the figures for Q1 2019 only cover 1st January – 30th March 2019 inc.

Executive Summary

Performance Headlines

AIRPORT OPERATIONS

Between 1st April and 30th June 2019, there were a total of 76,625 fixed wing aircraft movements at Gatwick, an increase in traffic of 1.3% compared to the same period in 2018. The direction of operation is determined by wind direction and this was split 51% on the westerly runway and 49% on the easterly runway for the period. The rolling 18 year average for the split in runway usage is approximately 68% westerly and 32% easterly.

STANDBY RUNWAY (26R/08L) USAGE

Although Gatwick has the main runway and the ‘reserve’ or standby runway, they cannot be operated simultaneously.

The standby runway is normally only utilised during the night when maintenance on the main runway is planned. During these three months, there were a total of 717 movements from the standby runway.

TRACK KEEPING

Track keeping performance has increased slightly compared to the previous year’s performance, details of which will follow later in this report. As part of our continuing commitment to increase on-track performance, the FPT also continues to engage with the airlines directly and through the Flight Operations Performance and Safety Committee (FLOPSC) on a range of initiatives to monitor compliance.

WOULD YOU LIKE TO KNOW MORE ABOUT AIRCRAFT NOISE OR TRACK A FLIGHT?

To track aircraft, see noise readings or make a complaint about aircraft noise at Gatwick you can visit our website: <http://www.gatwickairport.com/aircraftnoiseandairspace>

The website provides detailed maps on aircraft traffic around the airport as well as useful information on noise and statistics on aircraft movements. It also details the work we undertake with others in the aviation industry to try and alleviate the impact of our operations on both the local and wider community.

CONTINUOUS DESCENT OPERATIONS (CDO) PERFORMANCE

While the Noise and Track Keeping (NTK) system utilises the most up-to-date format of radar data currently available, the algorithm that measures CDO performance has remained

unchanged since the definition was initially defined several years ago. As part of a development project to improve the accuracy of CDO measurement, the FPT has worked closely with NATS to upgrade the current algorithm. The core algorithm remains unaltered, although some additional rules have been added with the result that some marginal profiles, previously classified as CDO compliant, will now be re-classified as non-CDO flights. These changes came into effect from May 2015 and the resulting variance in recorded levels of performance is in the order of 1%, therefore we expect to see a minor drop off in recorded performance from this date. Historical observations have consistently shown a reduction in performance during the winter months due to instances of inclement weather.

It is important to note that as recommended by the Independent Review of Arrivals, the altitude at which CDO is measured has changed as of 1st August 2016, more details later in the report.

COMMUNITY NOISE MONITORING

In addition to fixed monitors located close to the ends of the runway, there are currently mobile noise monitors deployed at sites in Lingfield, Rusper, Cowden, Charlwood, South Holmwood, Withyham, Hever Castle, Rusthall, Alfold, Slinfold, Faygate, Newdigate and Ruckmans.

For several years, we have run a programme of noise monitoring to get a better understanding of the levels of aircraft noise in the communities surrounding Gatwick Airport. The noise monitors provide a method of monitoring and recording noise from both aircraft, and background sources. This allows us to evaluate trends and make comparisons between the noise environments at different locations.

COMPLAINTS

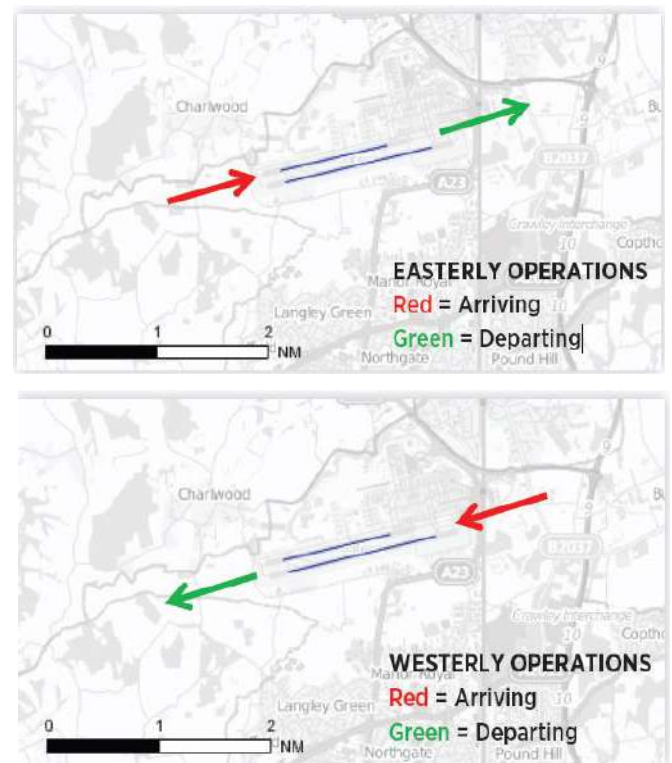
The number of recorded complaints has increased compared to the previous twelve months, however the number of complainants has decreased. Although the Airport has been just as busy as it has in recent years, there has also been a large amount of publicity surrounding the community issues related to the Route 4 amendment and the Airport’s Draft Master Plan Consultation, which may be contributing factors for the number of complaints in this quarter.

The postcode areas with the greatest number of enquiries during the three month period were Horley, Newdigate and Tunbridge Wells. The number of individual complainants between April and June was **271**. Complaints about aircraft operations are processed in accordance with our published Complaints Handling Policy. Details of this policy are available on our website.

Runway Direction

The graph below represents the direction of runway operation at Gatwick. Aircraft operating in a westerly direction take off towards the west and land from the east. Aircraft operating in an easterly direction take off towards the east and land from the west. Although the long term average is approximately 68:32 in favour of westerly operations, it is not unusual to experience long periods of prolonged operation in either one direction or another.

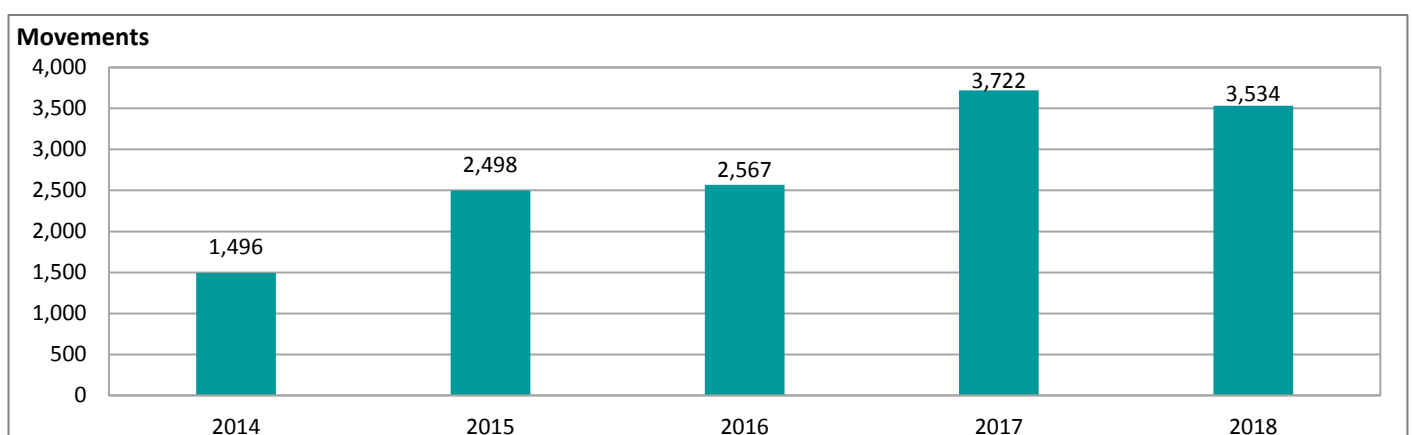
The Airport has one main runway. When the main runway is out of operation there is a standby runway adjacent to the main runway that can be used. This runway is shorter than the main runway and is not equipped with an Instrument Landing System and under current regulations, due to its proximity to the main runway, it cannot be used at the same time. The standby runway is normally only used during periods of essential maintenance on the main runway and this is normally carried out during night time when the Airport is not as busy.



STANDBY RUNWAY MOVEMENT TABLE

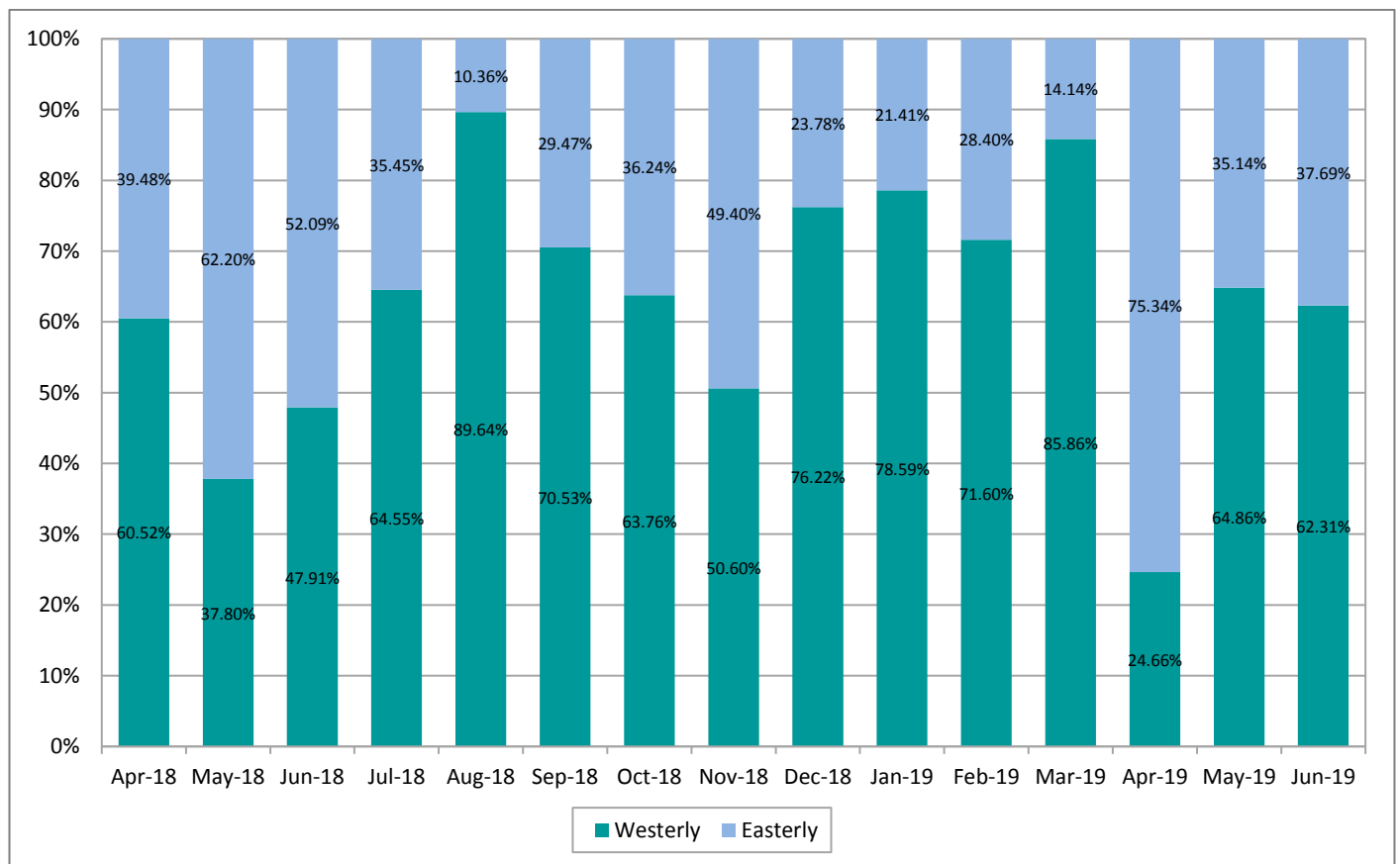
Month	Number of Standby Runway Movements	% of Movements in Month
Apr-18	307	1.3%
May-18	554	2.1%
Jun-18	500	1.8%
Jul-18	392	1.4%
Aug-18	87	0.3%
Sep-18	630	2.3%
Oct-18	18	0.1%
Nov-18	41	0.2%
Dec-18	39	0.2%
Jan-19	71	0.4%
Feb-19	34	0.2%
Mar-19	74	0.3%
Apr-19	123	0.5%
May-19	218	0.8%
Jun-19	376	1.4%

NUMBER OF STANDBY RUNWAY MOVEMENTS UTILISED OVER THE PAST 5 YEARS



RUNWAY DIRECTION SPLIT

THE GRAPH BELOW SHOWS THE SPLIT OVER THE 15 MONTH PERIOD (APRIL 2018 - JUNE 2019)



The Aeronautical Information Publication

An AIP is defined by the International Civil Aviation Organisation (ICAO) as a publication issued by or with the authority of a state and containing aeronautical information of a lasting character essential to air navigation.

It is designed to be a manual containing thorough details of regulations, procedures and other information pertinent to flying aircraft in the particular country to which it relates. It is usually issued by or on behalf of the respective civil aviation administration.

The structure and contents of AIPs are standardized by international agreement through ICAO. AIPs normally have three parts - GEN (general), ENR (en route) and AD (aerodromes).

The Gatwick Aerodrome AIP contains details regarding the noise mitigation measures in place and adherence to these is reported in this section.

ADHERENCE TO NOISE MITIGATION MEASURES AS DETAILED IN THE GATWICK AIP

Each element of this report is preceded, where applicable, by the relevant AIP reference and summary text detailing the purpose of the requirement. Data is then presented on current performance.

It should be noted that Gatwick is 202ft above mean sea level (AMSL) and the NTK system measures height relative to Gatwick elevation and not sea level.

References in the AIP are usually above sea level (quoted as Gatwick QNH) and therefore need to be reduced by 202ft to be comparable with heights, as measured by the NTK system. For example, the requirement to join the ILS at 3,000ft would equate to 2,798ft in the NTK system.

No account is taken of the variability of heights as measured by the radar which, depending on the distance from the radar head, can be +/- 200ft from that indicated. This is obviously allowed for by NATS and ANS when managing operations.

Departures - Noise Infringements

DEPARTURE NOISE LIMITS (DAYTIME)

EGKK AD 2.21 (3(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 Lmax by day (from 0700 to 2300 hours local time) as measured at any noise monitoring terminal at any of the sites referred to in sub-paragraph (2). This is to ensure that departing aircraft do not exceed the stated level during the day.

Year	Number of Day Infringements	Year	Number of Day Infringements
2006	9	2013	0
2007	13	2014	0
2008	2	2015	0
2009	0	2016	0
2010	0	2017	0
2011	0	2018	0
2012	0	2019	1

The daytime noise infringement was caused by a Virgin Atlantic Boeing 747-400 Series aircraft which breached the daytime noise limit of the fixed monitor at Russ Hill by 0.9dB (adjusted for tailwind). The airline has been fined £500 for the infringement.

Departures - Initial Climb Performance

EGKK AD 2.21 (3(1)) After take-off the aircraft shall be operated in such a way that it is at a height of not less than 1000ft aal (above airfield level) at 6.5 km from start of roll as measured along the departure track of the aircraft. This is to ensure departing aircraft achieve at least that climb gradient in order to reduce the impact on the ground.

Comment:

There were no infringements of the 1,000ft rule during this three month period.

Historically, the summer months are typically the peak period for aircraft failing to meet the 1,000ft requirement, primarily due to the warmer weather which reduces aircraft climb performance.

DEPARTURE NOISE LIMITS (CORE NIGHT & SHOULDERS)

EGKK AD 2.21 (3(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 Lmax by night (from 2300 to 0700 hours local time) and that it will not cause more than 87 dBA Lmax 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). This is to ensure that departing aircraft do not exceed the stated levels during the night and shoulder periods.

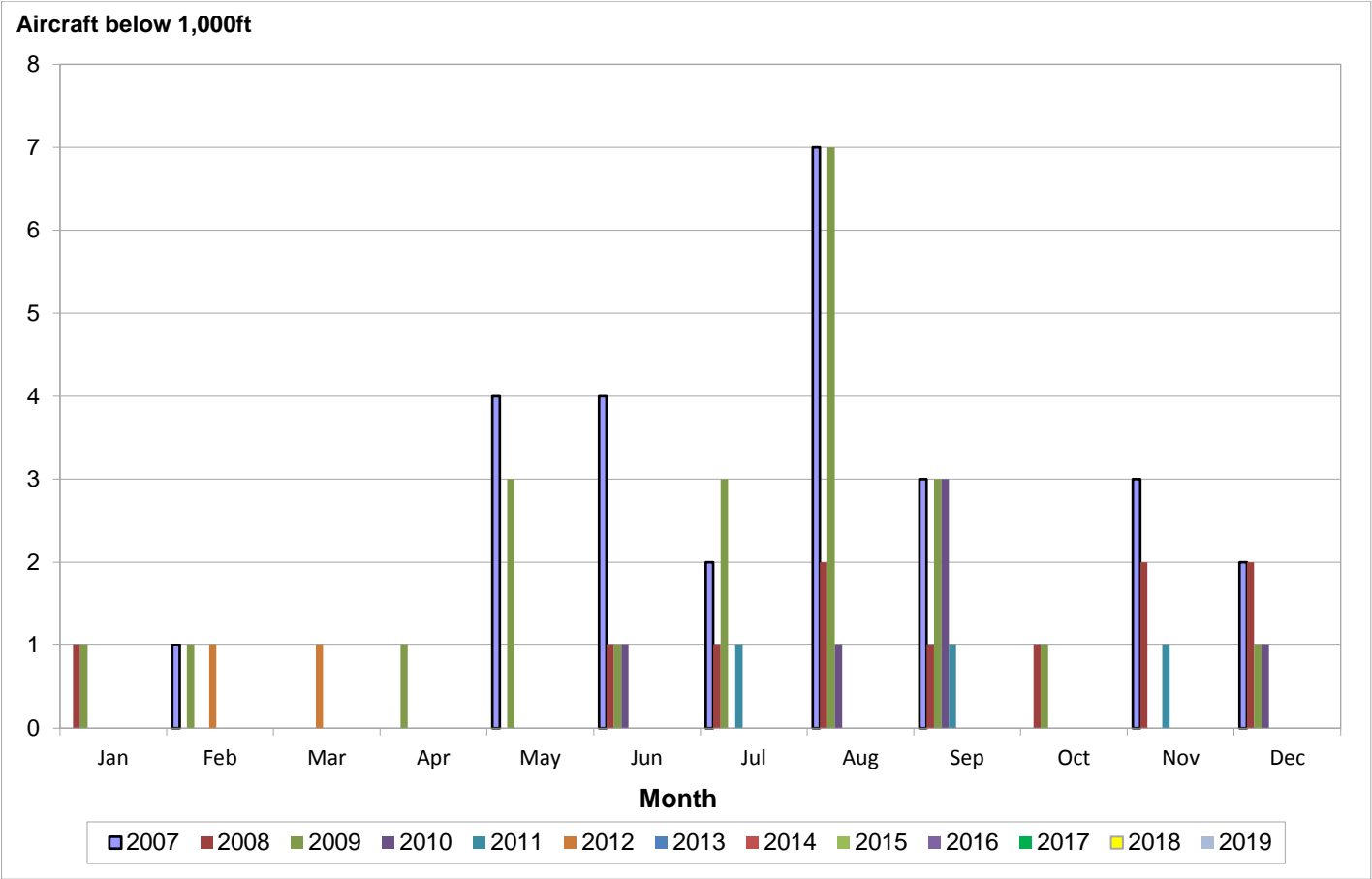
Year	Number of Night & Shoulder Infringements	Year	Number of Night & Shoulder Infringements
2006	2	2013	0
2007	2	2014	0
2008	2	2015	0
2009	1	2016	1
2010	0	2017	2
2011	4	2018	0
2012	0	2019	0

1,000ft INFRINGEMENT TABLE

Year	Total Infringements	Year	Total Infringements
2006	11	2013	0
2007	26	2014	0
2008	11	2015	0
2009	22	2016	0
2010	6	2017	0
2011	3	2018	0
2012	2	2019	0

THE GRAPH BELOW ILLUSTRATES 1,000ft INFRINGEMENT PERFORMANCE SINCE 2007

Initial Climb Performance



Departures – Track Keeping

All jet aircraft leaving Gatwick Airport should follow flight paths known as Noise Preferential Routes (NPRs) up to a height of 3,000ft or 4,000ft depending on the route. An NPR consists of a 'centreline' and an associated compliance monitoring swathe (3km across, i.e. 1.5km either side of the NPR centreline). As long as aircraft remain within the corridor boundaries, they are deemed to be on-track. A map illustrating the NPRs at Gatwick is available overleaf.

Air Traffic Control (ATC) are responsible for the routing of aircraft once airborne and when 3,000ft or 4,000ft has been reached, they may give a flight a more direct heading, known as vectoring off of the route. This is subject to certain factors, including weather conditions and other traffic in the vicinity. Flights leaving the route below the required height are automatically flagged and details are sent to the airline for investigation. FLOPSC regularly review track keeping performance.

In 2012, Gatwick Airport publicly consulted on the implementation of a more modern form of aircraft navigation called P-RNAV (Precision Route Navigation). After having assessed all consultation feedback, in November 2013, the Civil Aviation Authority (CAA) granted the airport permission to implement P-RNAV on all of our departure routes. Implementing P-RNAV on the published departure routes has resulted in the tracks of departing aircraft being more concentrated within the boundaries of the current Noise Preferential Routes (NPR) conformance monitoring swathes, with one exception, 26LAM/Route 4 has always presented a challenge for modern jets as it was designed to accommodate the propeller-driven aircraft and early jets that were prevalent in the 1960's when the NPR was established.

Implementing P-RNAV on this route required aircraft to fly outside of the current NPR. Therefore, as approved by the CAA, aircraft with a P-RNAV departure SID on this route were not classified as off-track as they were following the published route. Following the introduction of P-RNAV in April 2014, the CAA conducted a Post Implementation Review (PIR) on all of the departure routes. The Review recommended that 26LAM/Route 4 be modified so that departing aircraft are compliant and remain within the published NPR swathe. It now requires all Standard Instrument Departure routes (SID's) to be counted in the track keeping statistics whereas previously, the Route 4 P-RNAV SID's were not included. Following the PIR and consultation, the CAA concluded that the modified Route 4 SID's achieved a satisfactory replication of the nominal track of the corrected conventional SID and confirmed the P-RNAV SID designs currently published in the UK Aeronautical Information Publication as permanent.

Following the quashing of the CAA's April 2017 decision by consent, Gatwick was working to revert the Route 4 conventional SID's to their position as they were before 7th April 2017. In support of this, Gatwick completed a comprehensive safety review, validated this with an independent Instrument Flight Procedure Designer and submitted the changes to the CAA for approval in May 2018. (Note: this change did not affect the distribution of traffic).

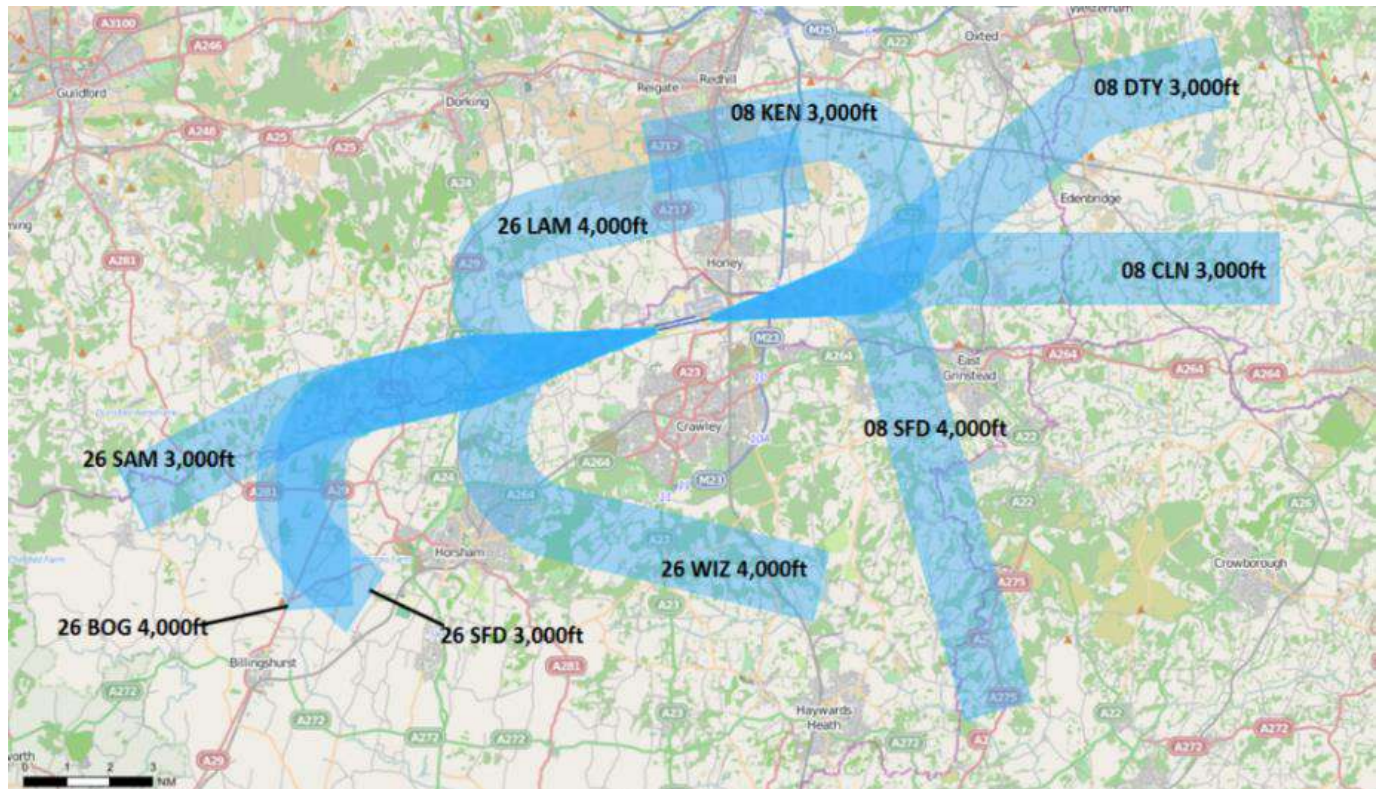
Recently the CAA was served by Plane Justice with a pre-action protocol – an early stage notification of a potential legal challenge – in relation to Route 4. This prompted the CAA as a consequence to instruct Gatwick to review these conventional Route 4 SIDs. Due to the potential change to the lateral track of the conventional departure routes this would require the development of a full Airspace Change Proposal (ACP). A rigorous legal process that is likely to take up to two years to achieve. Gatwick believes that this would introduce significant risk to the current, ongoing Route 4 ACP. Our key concern is that the proposal from the CAA risks confusing stakeholders and local residents with multiple consultations at the same time. It would also add significant delay to the already challenging timescales for the existing Route 4 consultation, which itself has the potential to generate understandable frustration among local communities looking for a swift resolution to this matter.

After careful consideration we have decided not to carry out this review. We expect that our decision will allow the CAA to draw to a close the 2012 airspace change on Route 4 by requesting Gatwick to de-notify the current temporary Route 4 RNAV Standard Instrument Departures (it is unlikely that this request will change the current distribution of traffic). This will de-couple both the 2012 airspace change and the one currently being led by Gatwick. It will also simplify the consultation process and allow Gatwick to continue its work following the correct procedure taking into account the various relevant factors to achieve an end result as soon as possible.

You can follow progress of this process using the CAA's Airspace Change Portal: <https://airspacechange.caa.co.uk/>

There has also been a modification to our 08CLN/Route 5 NPR which has been in place since the 30th March 2017, as advised by the CAA. Previously, aircraft were flying slightly to the south of the NPR centreline and this modification aims to better replicate the existing conventional SID route and bring aircraft back towards the centre. This was monitored by the CAA for a six month period until the 30th September 2017 to ensure the aircraft were operating as anticipated. Gatwick is awaiting a decision from the CAA regarding its status.

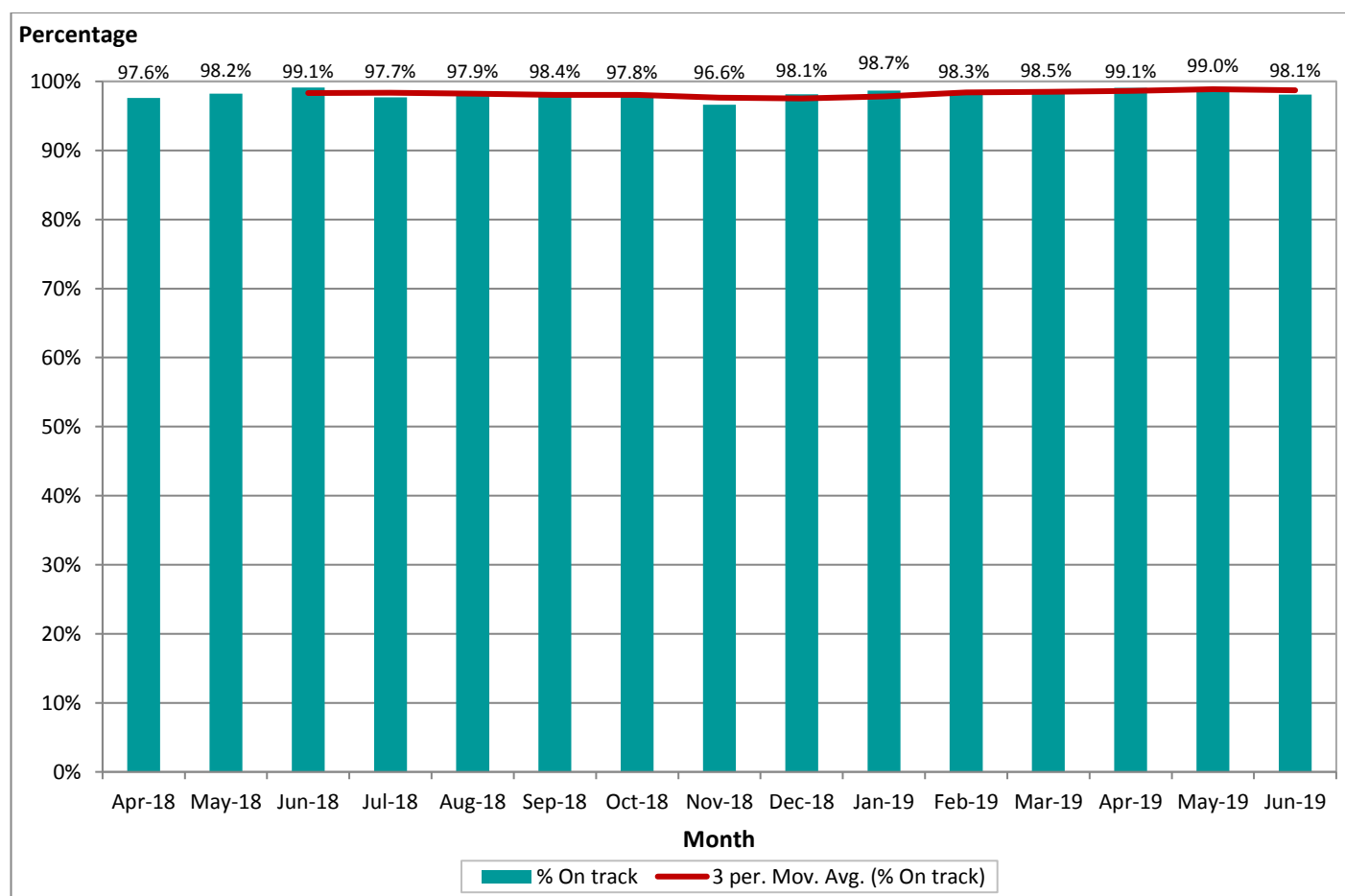
THE MAP BELOW ILLUSTRATES THE NOISE PREFERENTIAL ROUTES USED BY DEPARTING AIRCRAFT WITH MINIMUM VECTORING ALTITUDE FIGURES



THE TABLE BELOW ILLUSTRATES TRACK KEEPING PERFORMANCE OVER 15 MONTHS

Month	Total			Westerly			Easterly		
	Deviations	Departures	%	Deviations	Departures	%	Deviations	Departures	%
Apr-18	281	11715	2.40%	266	7111	3.74%	15	4604	0.33%
May-18	226	12788	1.77%	122	7937	1.54%	104	4851	2.14%
Jun-18	120	13301	0.90%	99	6428	1.54%	21	6873	0.31%
Jul-18	300	13029	2.30%	288	8829	3.26%	12	4200	0.29%
Aug-18	253	12323	2.05%	249	10866	2.29%	4	1457	0.27%
Sep-18	209	13472	1.55%	202	9505	2.13%	7	3967	0.18%
Oct-18	274	12530	2.19%	258	7966	3.24%	16	4564	0.35%
Nov-18	327	9705	3.37%	314	4904	6.40%	13	4801	0.27%
Dec-18	189	10191	1.85%	184	7762	2.37%	5	2429	0.21%
Jan-19	131	9895	1.32%	130	7806	1.67%	1	2089	0.05%
Feb-19	167	9963	1.68%	160	7098	2.25%	7	2865	0.24%
Mar-19	165	10926	1.51%	165	9751	1.69%	0	1175	0.00%
Apr-19	109	11989	0.91%	88	2948	2.99%	21	9041	0.23%
May-19	127	13041	0.97%	109	8440	1.29%	18	4601	0.39%
Jun-19	255	13280	1.92%	245	8179	3.00%	10	5101	0.20%

THE GRAPH BELOW ILLUSTRATES TRACK KEEPING PERFORMANCE OVER 15 MONTHS WITH A TREND LINE



UNUSUAL TRACKS

Some 'unusual tracks' taken by departing aircraft are recorded by our NTK system and these can occur for a number of reasons, such as weather avoidance. These can result in the aircraft leaving the NPR below the required altitude or aircraft that have vectored at the required altitude and then misdirected to avoid conflict with traffic from other airports. All unusual tracks are investigated with the airline concerned.

Comment: During this three month period, there were no unusual tracks identified.

Departures – Over Congested Areas

THE WIZAD NOISE PREFERENTIAL ROUTE

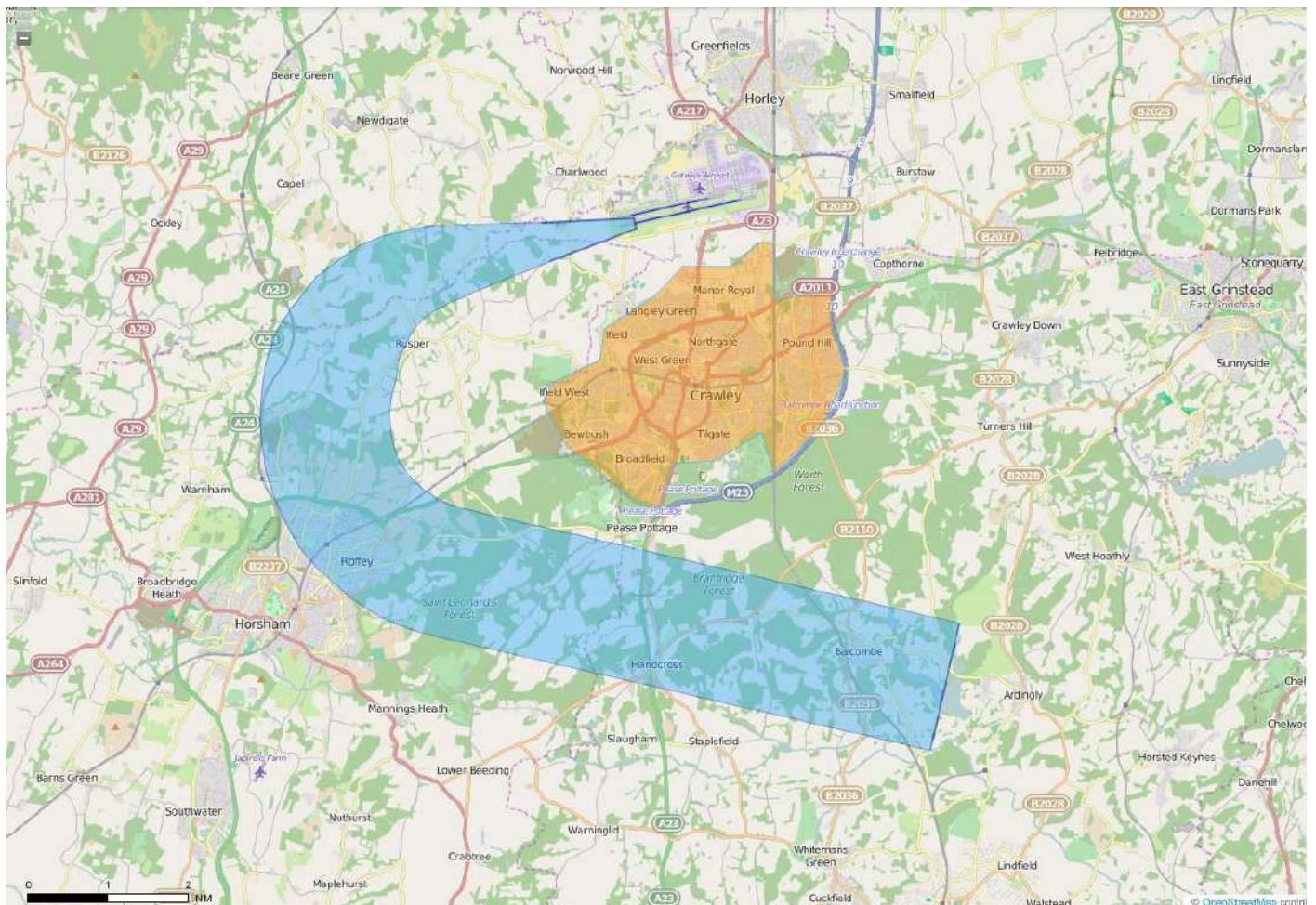
The WIZAD NPR (26WIZ or Route 9) was designated by the Government at the same time as all other Gatwick departure routes; however, it is not used on an equal basis with the other routes. It is a Tactical Offload Route and is not usually offered as part of a flight path. If the 26LAM Route (or Route 4) is very busy, WIZAD will be offered as a last minute alternative to ease the load.

As it is only a Tactical Offload Route, it is not well known and it is only offered to local pilots and usually used by more modern, high performance aircraft. It will also be used during periods of poor weather when an alternative to the usual routes may be required as aircraft should not fly through thunderstorms.

EGKK AD 2.21 (8)(c) *The ATC clearance via Mayfield specified in the second column of the table will not be available between 2300 hours and 0700 hours local time. Aircraft following the Noise Preferential Routing Procedure which relates to that clearance shall not fly over Crawley, Crawley Down or East Grinstead. This is to avoid aircraft noise from departing aircraft over areas of high population at night on the 26 WIZAD NPR.*

Comment: During this three month period, there were no departures during the restricted period on the 26 WIZAD NPR.

THE MAP BELOW ILLUSTRATES THE CRAWLEY TOWN BOUNDARY WITH NOISE PREFERENTIAL ROUTE 26 WIZAD



Overflight of Crawley and Horley

EGKK AD 2.21 (9) *After taking off the aircraft shall avoid flying over the congested areas of Horley and Crawley.*

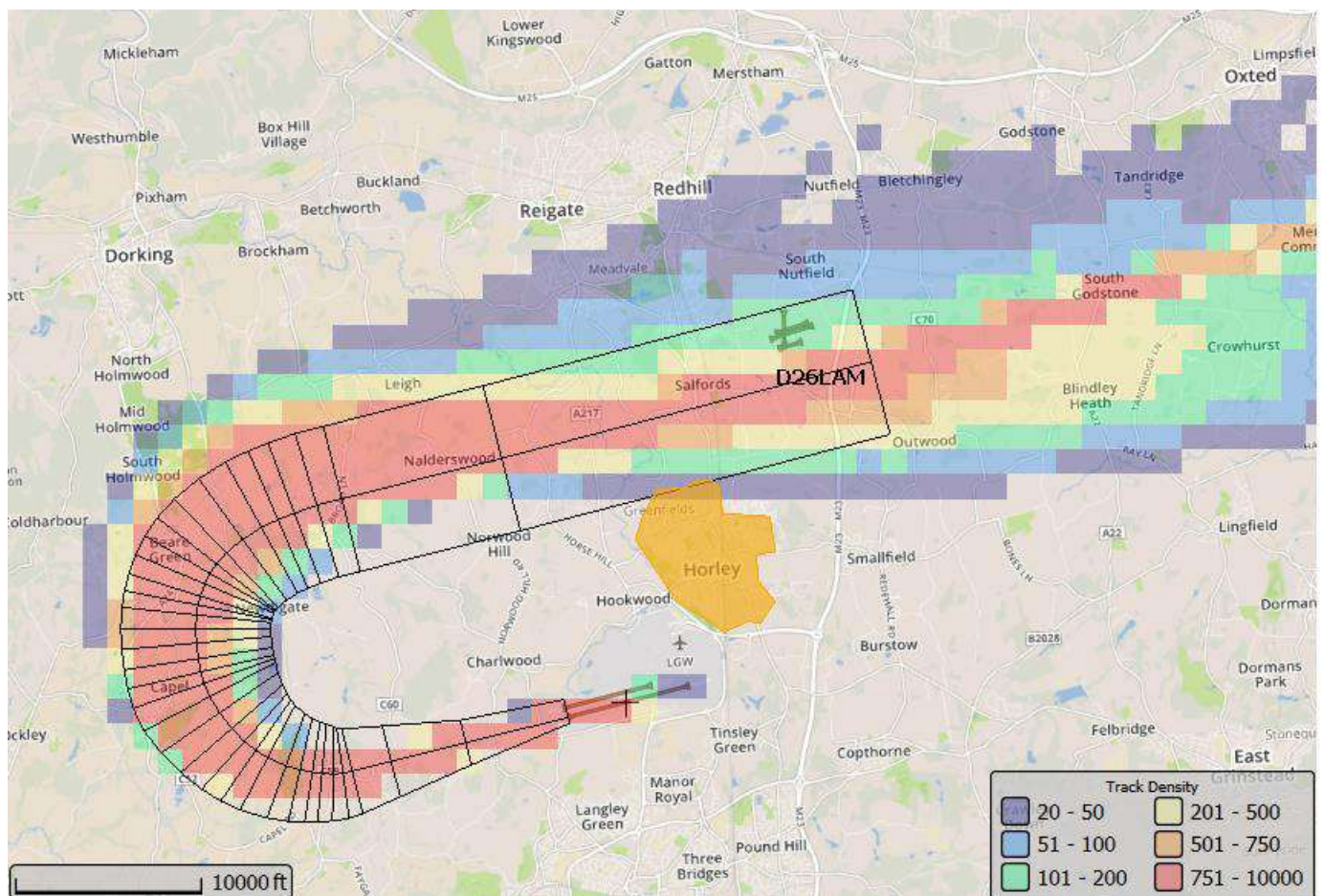
This is to avoid aircraft noise from departing aircraft over areas of high population.

Comment: During this period, there were no departing flights that passed over Crawley. It is important to note that Horley does experience overflight from Heathrow Airport traffic. The current construction of the SID is of the 'course to fix' type which determines the course to fly terminating at a waypoint whereas the 'radius to fix' specifies the curved path defined by radius, arc length and fix with the angle of bank being varied to achieve the specified path. Accelerating to a fixed

speed in times of strong south westerly winds (2000' wind >25kts) can exceed the aircraft's authorised limits. This leads to a variance between different aircraft types and operators and therefore, some aircraft fly further north or south than others. The wind and weather (e.g. thunderstorms) also has an effect on the headings of aircraft which may result in direct overflight of Horley.

It should be noted that the Casper NTK system experienced two radar outages between 11th and 12th July and 10th and 13th August inclusive which means data has had to be omitted from the figures for these dates

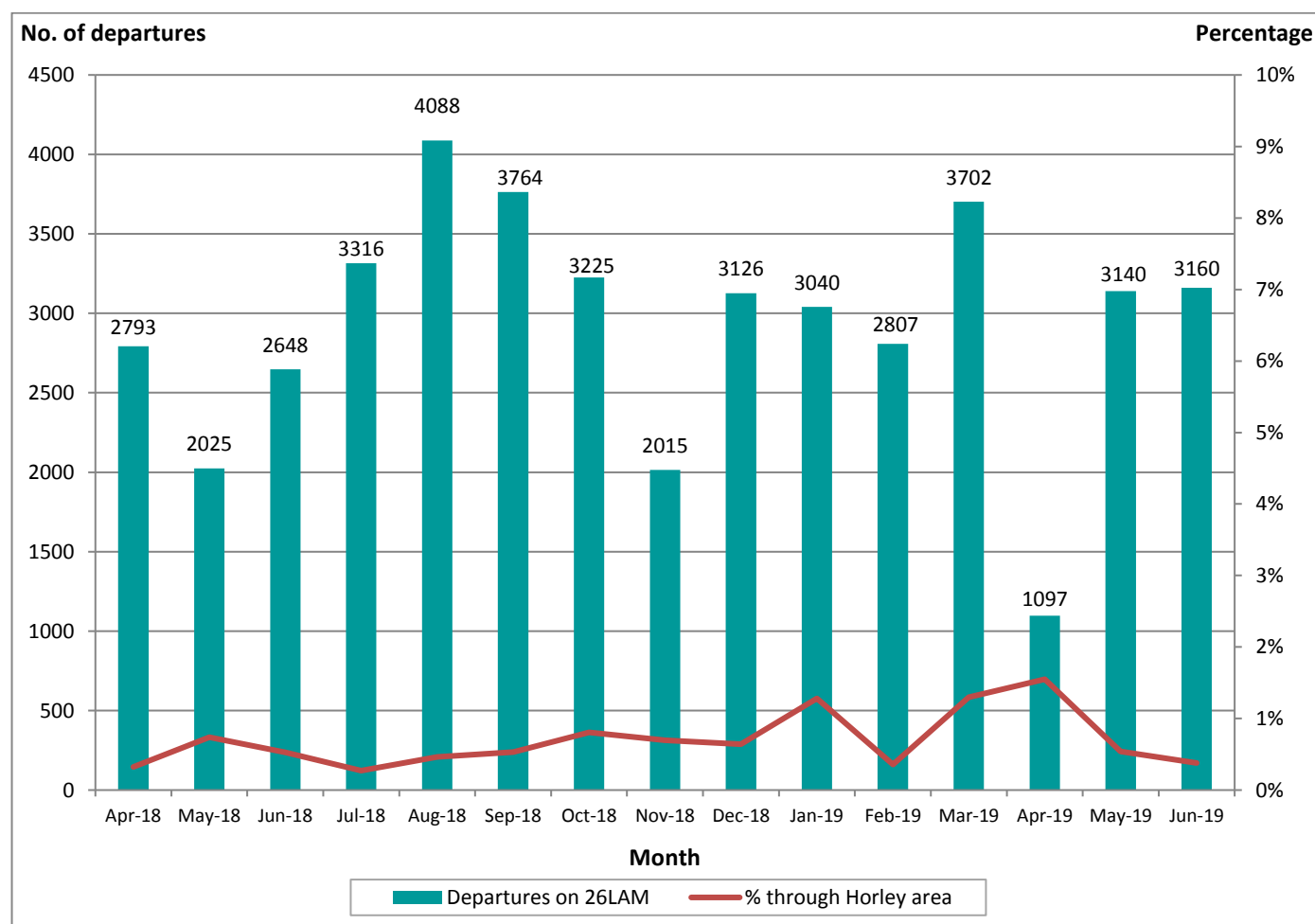
THE MAP BELOW ILLUSTRATES THE TRACK DENSITY OF DEPARTING AIRCRAFT ON THE 26 LAM DEPARTURE ROUTE DURING THE THREE MONTH PERIOD WITH HORLEY TOWN HIGHLIGHTED



THE TABLE BELOW ILLUSTRATES THE ANALYSIS OF HORLEY OVERFLIGHT

Month	Deps on 26LAM	Horley Area	% through Horley Area	Month	Deps on 26LAM	Horley Area	% through Horley Area	Month	Deps on 26LAM	Horley Area	% through Horley Area
Jan-17	2004	19	0.95%	Jan-18	3056	29	0.95%	Jan-19	3040	39	1.28%
Feb-17	2391	22	0.92%	Feb-18	2075	19	0.92%	Feb-19	2807	10	0.36%
Mar-17	3385	10	0.30%	Mar-18	2314	13	0.56%	Mar-19	3702	48	1.30%
Apr-17	3307	15	0.45%	Apr-18	2793	9	0.32%	Apr-19	1097	17	1.55%
May-17	2347	9	0.38%	May-18	2025	15	0.74%	May-19	3140	17	0.54%
Jun-17	4075	26	0.64%	Jun-18	2648	14	0.53%	Jun-19	3160	12	0.38%
Jul-17	4310	20	0.46%	Jul-18	3316	9	0.27%	Jul-19	-	-	-
Aug-17	4162	12	0.29%	Aug-18	4088	19	0.46%	Aug-19	-	-	-
Sep-17	4040	25	0.62%	Sep-18	3764	20	0.53%	Sep-19	-	-	-
Oct-17	4526	28	0.62%	Oct-18	3225	26	0.81%	Oct-19	-	-	-
Nov-17	3558	30	0.84%	Nov-18	2015	14	0.69%	Nov-19	-	-	-
Dec-17	3947	35	0.89%	Dec-18	3126	20	0.64%	Dec-19	-	-	-

THE GRAPH BELOW ILLUSTRATES THE ANALYSIS OF HORLEY OVERFLIGHT



Arrivals – Continuous Descent Operations (CDO)

A CDO (also known as a Continuous Decent Approach, CDA) is a noise abatement technique of flight during which a pilot descends at a rate with the intention of achieving a continuous descent to join the glide path at the correct height for the distance. This procedure thereby avoids the need for extended periods of level flight and results in keeping the aircraft higher for longer reducing the need for thrust. In addition to aiding noise reduction, this also reduces fuel burn thereby cutting emissions and producing an overall environmental benefit.

A CDO is a procedure designed to try and avoid prolonged periods of level flight below 7,000ft*. Studies have determined that elements of prolonged level flight are noisier than when following CDO. The aviation industry is working hard to improve compliance and an Arrivals Code of Practice (ACoP) has been produced by the Department for Transport (DfT) which aims to promote the use of CDO as a regular practice for all arriving aircraft:

‘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 7,000ft* QNH and ‘level flight’ is interpreted as any segment of flight having a height change of not more than 50ft over a track distance of 2nm or more, as recorded in the airport Noise and Track Keeping system.’

A CDO is not a precise art and relies on the accuracy of track miles provided by ATC to the flight crew coupled with pilot skill, weather conditions and operational circumstances. Additionally, different aircraft types perform differently requiring varying operating practices to be utilised in order to slow the aircraft down and meet speed restrictions. Therefore the procedures in the ACoP are advisory rather than compulsory, so there are no sanctions against pilots or airlines that fail to comply with the measures. Despite this, publication of the ACoP has resulted in significant improvements in CDO achievement at all times of day and night. The FPT are actively working with the airlines to encourage the use of CDO as a best practice method by continually providing monthly reports. Airlines and pilots are

keen to adopt this procedure for economic as well as environmental reasons and are active in promoting CDO within their companies.

CDO data is measured over three time periods:

- The Core Night period (2330-0600)
- The Day and Shoulder periods (0600–2330)
- The 24-hour period

The following text appears in the UK AIP Noise Abatement Procedures for Gatwick Airport:

EGKK AD 2.21 (10) *Where the aircraft is approaching the aerodrome to land it shall, commensurate with its ATC clearance, minimise noise disturbance by the use of continuous decent and low power, low drag operating procedures (referred to in Detailed Procedures for descent clearance in EGKK AD 2.22 of the UK AIP). 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 in 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. This is to avoid prolonged periods of level flight and keep aircraft as high as possible for as long as possible.*

*As a result of the Independent Review of Arrivals, it was recommended (Imm-05) that the CDO monitoring altitude be increased from 6,000ft to 7,000ft as of 1st August 2016.

It should be noted that the Casper NTK system experienced two radar outages between 11th and 12th July and 10th and 13th August inclusive which means data has had to be omitted from the figures for these dates.

It should be noted that due to the termination of the Casper NTK system on 31st March 2019, the figures for Q1 2019 only cover 1st January – 30th March 2019 inc.

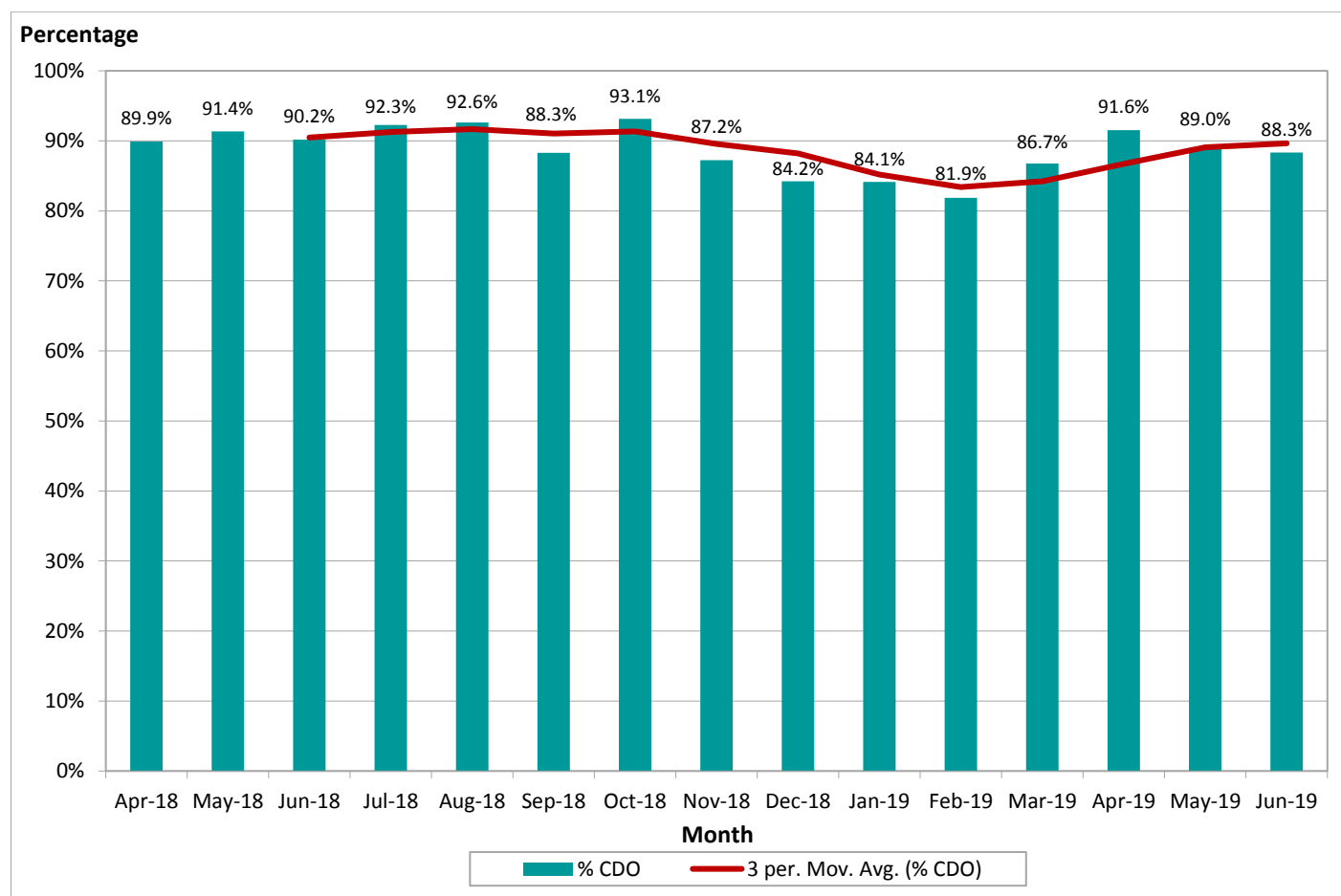


CORE NIGHT PERIOD (2330-0600)

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO CORE NIGHT TIME PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Apr-18	890	90	89.89%	425	23	94.59%	465	67	85.59%
May-18	1331	115	91.36%	841	60	92.87%	490	55	88.78%
Jun-18	1667	164	90.16%	945	63	93.33%	722	101	86.01%
Jul-18	1755	136	92.25%	502	45	91.04%	1253	91	92.74%
Aug-18	1561	115	92.63%	173	8	95.38%	1388	107	92.29%
Sep-18	1569	184	88.27%	526	51	90.30%	1043	133	87.25%
Oct-18	1122	77	93.14%	416	25	93.99%	706	52	92.63%
Nov-18	329	42	87.23%	185	23	87.57%	144	19	86.81%
Dec-18	437	69	84.21%	117	15	87.18%	320	54	83.13%
Jan-19	315	50	84.13%	66	6	90.91%	249	44	82.33%
Feb-19	364	66	81.87%	106	18	83.02%	258	48	81.40%
Mar-19	445	59	86.74%	55	6	89.09%	390	53	86.41%
Apr-19	816	68	91.67%	664	53	92.02%	152	15	90.13%
May-19	1246	137	89.00%	479	47	90.19%	767	90	88.27%
Jun-19	1595	186	88.34%	574	71	87.63%	1021	115	88.74%

THE GRAPH BELOW ILLUSTRATES THE CORE NIGHT TIME CDO COMPLIANCE WITH A TREND LINE

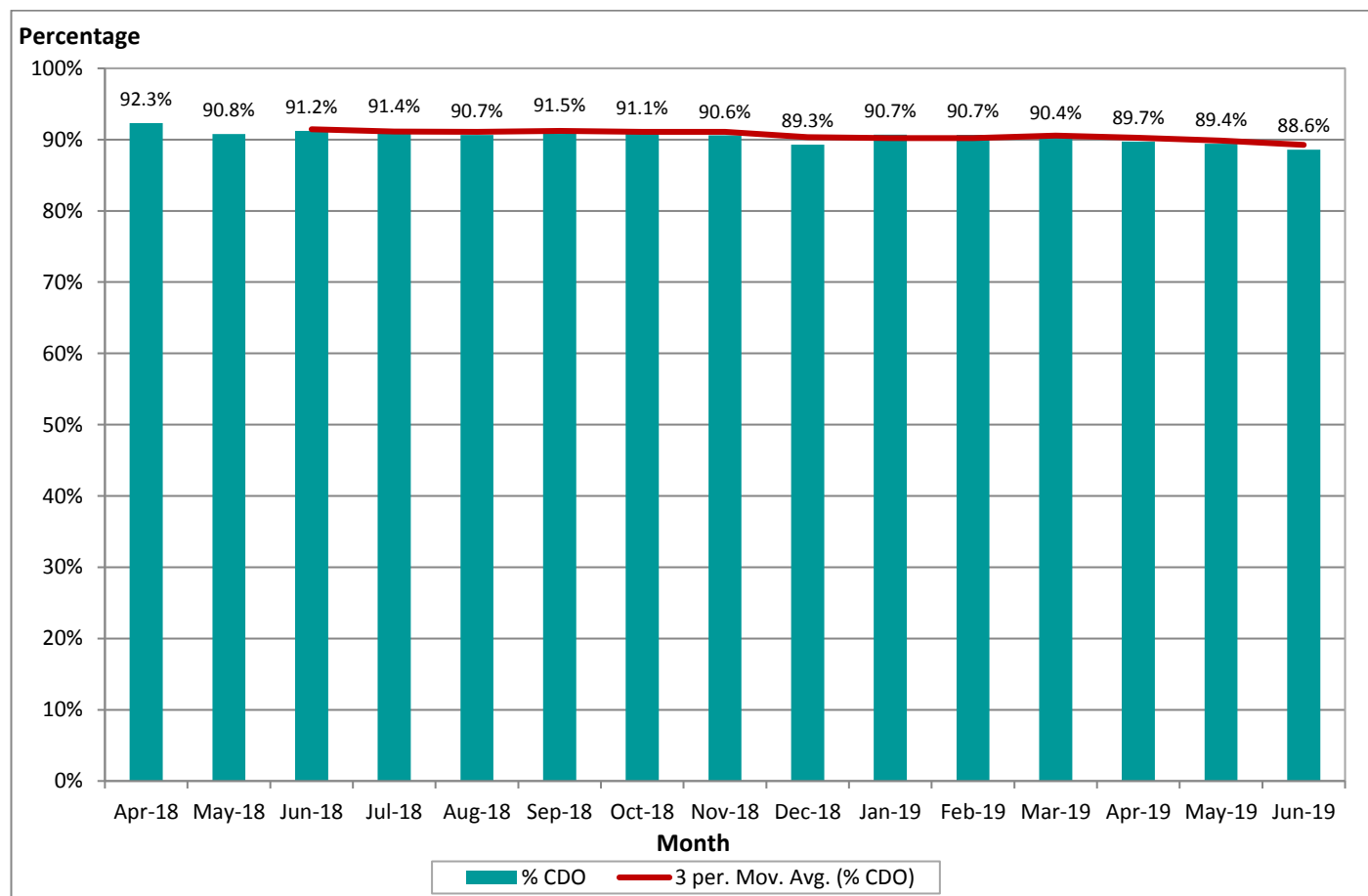


DAYTIME AND SHOULDER PERIOD CDO ACHIEVEMENT (0600-2330)

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO DAYTIME AND SHOULDER PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Apr-18	10847	831	92.34%	4221	312	92.61%	6626	519	92.17%
May-18	11443	1053	90.80%	7113	407	94.28%	4330	346	92.01%
Jun-18	11648	1023	91.22%	6042	542	91.03%	5606	481	91.42%
Jul-18	11296	967	91.44%	3551	286	91.95%	7745	681	91.21%
Aug-18	10714	1001	90.66%	1272	129	89.86%	9442	872	90.76%
Sep-18	11903	1012	91.50%	3464	324	90.65%	8439	688	91.85%
Oct-18	11434	1017	91.11%	4103	382	90.69%	7331	635	91.34%
Nov-18	9340	876	90.62%	4591	393	91.44%	4749	483	89.83%
Dec-18	9770	1045	89.30%	2304	216	90.63%	7466	829	88.90%
Jan-19	9568	891	90.69%	2081	162	92.22%	7487	729	90.26%
Feb-19	9596	897	90.65%	2688	216	91.96%	6908	681	90.14%
Mar-19	10494	1009	90.38%	1170	72	93.85%	9324	937	89.95%
Apr-19	11195	1149	89.74%	8377	849	89.87%	2818	300	89.35%
May-19	11787	1245	89.44%	4082	363	91.11%	7705	882	88.55%
Jun-19	11676	1331	88.60%	4332	455	89.50%	7344	876	88.07%

THE GRAPH BELOW ILLUSTRATES THE DAY & SHOULDER CDO COMPLIANCE WITH A TREND LINE

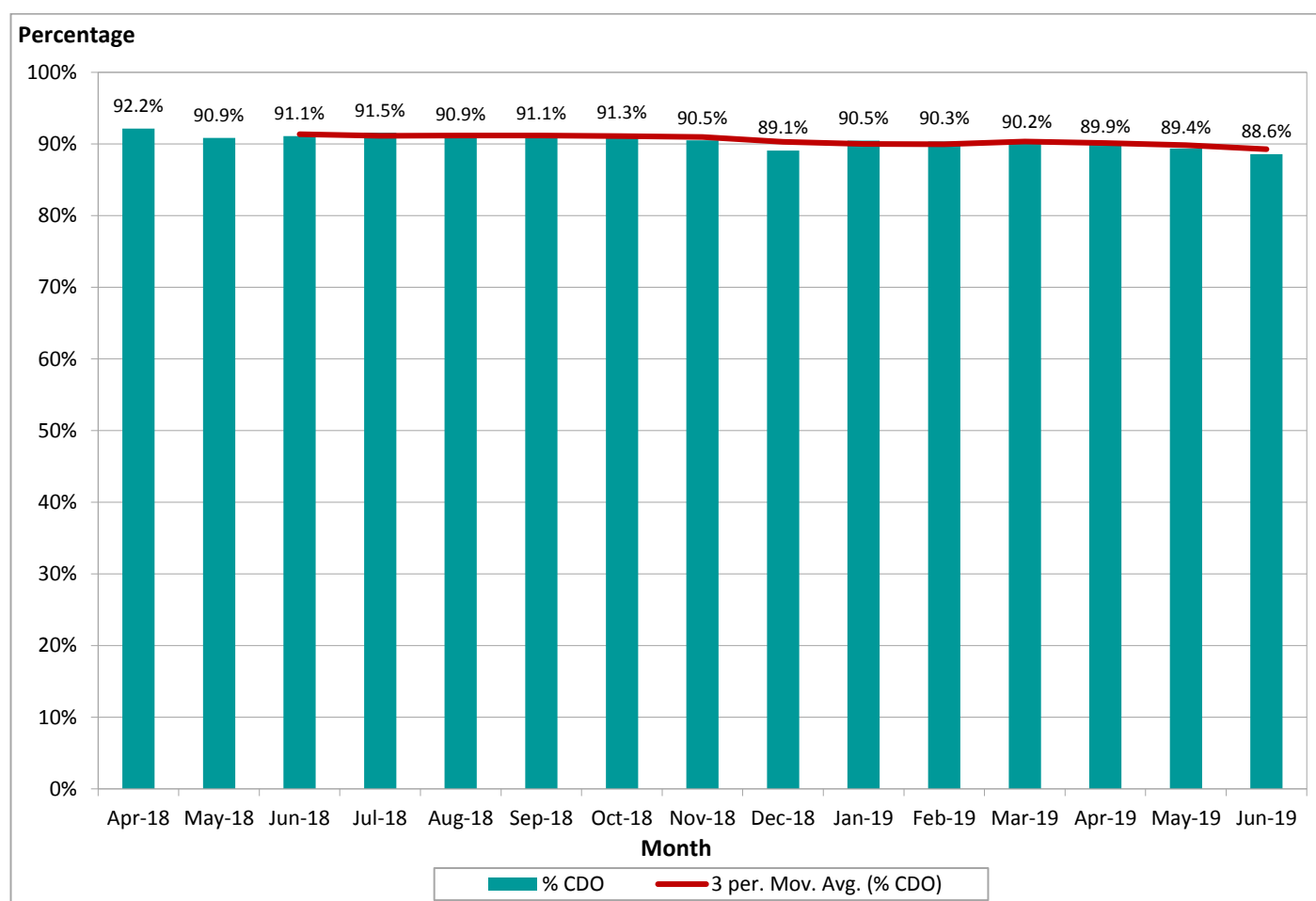


24 HOUR PERIOD CDO ACHIEVEMENT

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO 24 HOUR TIME PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Apr-18	11737	921	92.15%	4646	335	92.79%	7091	586	91.74%
May-18	12774	1168	90.86%	7954	767	90.36%	4820	401	91.68%
Jun-18	13315	1187	91.09%	6986	605	91.34%	6329	582	90.80%
Jul-18	13051	1103	91.55%	4053	331	91.83%	8998	772	91.42%
Aug-18	12275	1116	90.91%	1445	137	90.52%	10830	979	90.96%
Sep-18	13472	1196	91.12%	3990	375	90.60%	9482	821	91.34%
Oct-18	12556	1094	91.29%	4519	407	90.99%	8037	687	91.45%
Nov-18	9669	918	90.51%	4776	416	91.29%	4893	502	89.74%
Dec-18	10207	1114	89.09%	2421	231	90.46%	7786	883	88.66%
Jan-19	9883	941	90.48%	2147	168	92.18%	7736	773	90.01%
Feb-19	9960	963	90.33%	2794	234	91.62%	7166	729	89.83%
Mar-19	10939	1068	90.24%	1225	78	93.63%	9714	990	89.81%
Apr-19	12011	1217	89.87%	9041	903	90.01%	2970	315	89.39%
May-19	13033	1382	89.40%	4561	410	91.01%	8472	972	88.53%
Jun-19	13271	1517	88.57%	4906	526	89.28%	8365	991	88.15%

THE GRAPH BELOW ILLUSTRATES THE 24 HOUR PERIOD CDO COMPLIANCE WITH A TREND LINE



Arrivals – Over Congested Areas

OVERFLIGHT OF CONGESTED AREAS

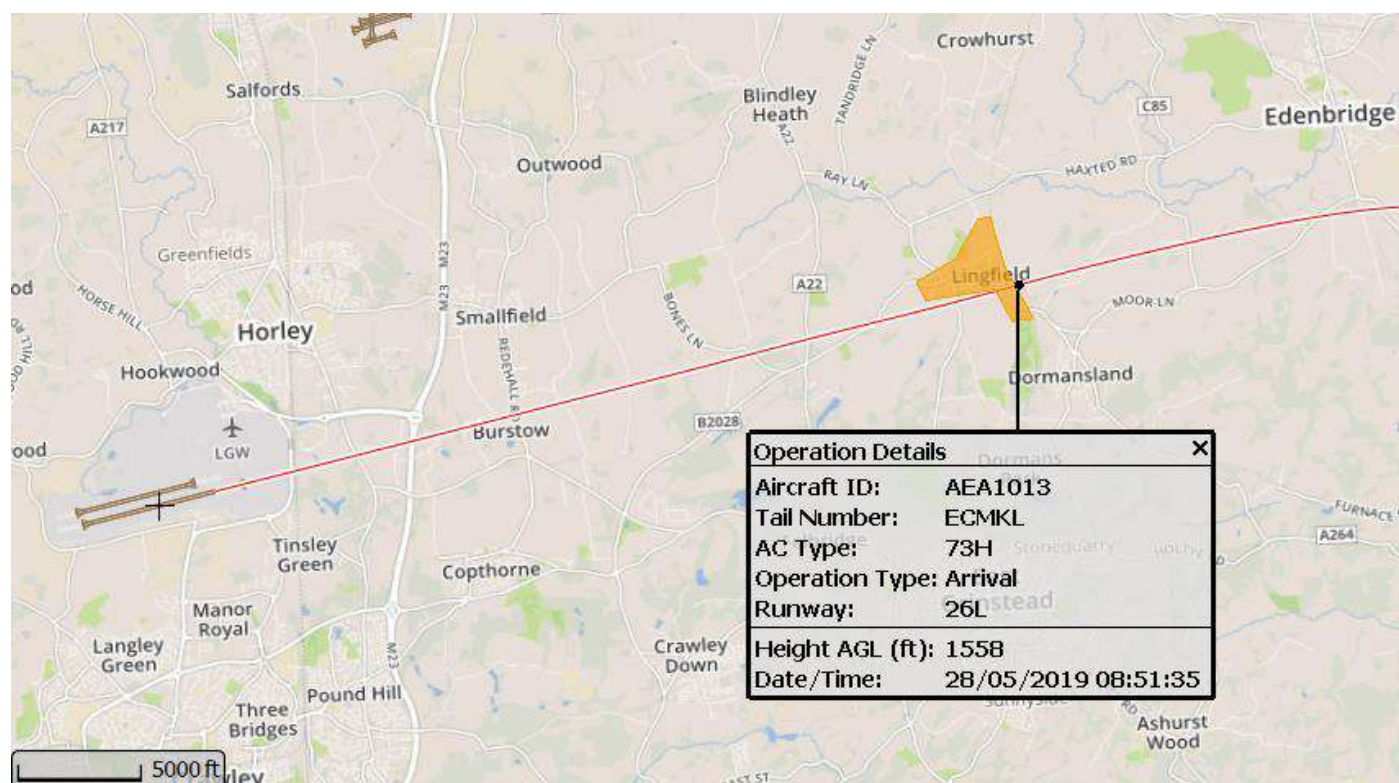
AD 2-EGKK1-12 (11) *Before landing at the aerodrome the aircraft shall maintain as high an altitude as practicable and shall not fly over the congested areas of Crawley, East Grinstead, Horley and Horsham at an altitude of less than 3,000ft (Gatwick QNH) nor over the congested area of Lingfield at an altitude of less than 2,000ft (Gatwick QNH).*

N.B. 2,000ft – (202ft (airfield elevation) + 100ft (radar/ILS tolerance)) = 1,698ft on Airports Noise & Aircraft Tracking System

Comment: There were no arriving flights which passed over the towns of Crawley, Horley or East Grinstead other than a small number of go-arounds. The map overleaf illustrates these analysis zones.

A polygon located over the urban area at about 7 nautical miles (NM) from touchdown is normally used to analyse tracks over the Lingfield area.

During the analysis period, there were a total of 50 arrivals that passed through this area. Aircraft tracks were analysed for April, May and June 2019 and there was a single flight which passed over Lingfield below the altitude of 1,698ft (2,000ft Gatwick QNH). This was caused by an Air Europa Boeing 737-800 Series passing over the town at 1,558ft above aerodrome level on 28 May 2019 as shown on the map below. This was investigated with the airline concerned and it was discovered that this low level of flying was due to pilot error on a training flight.



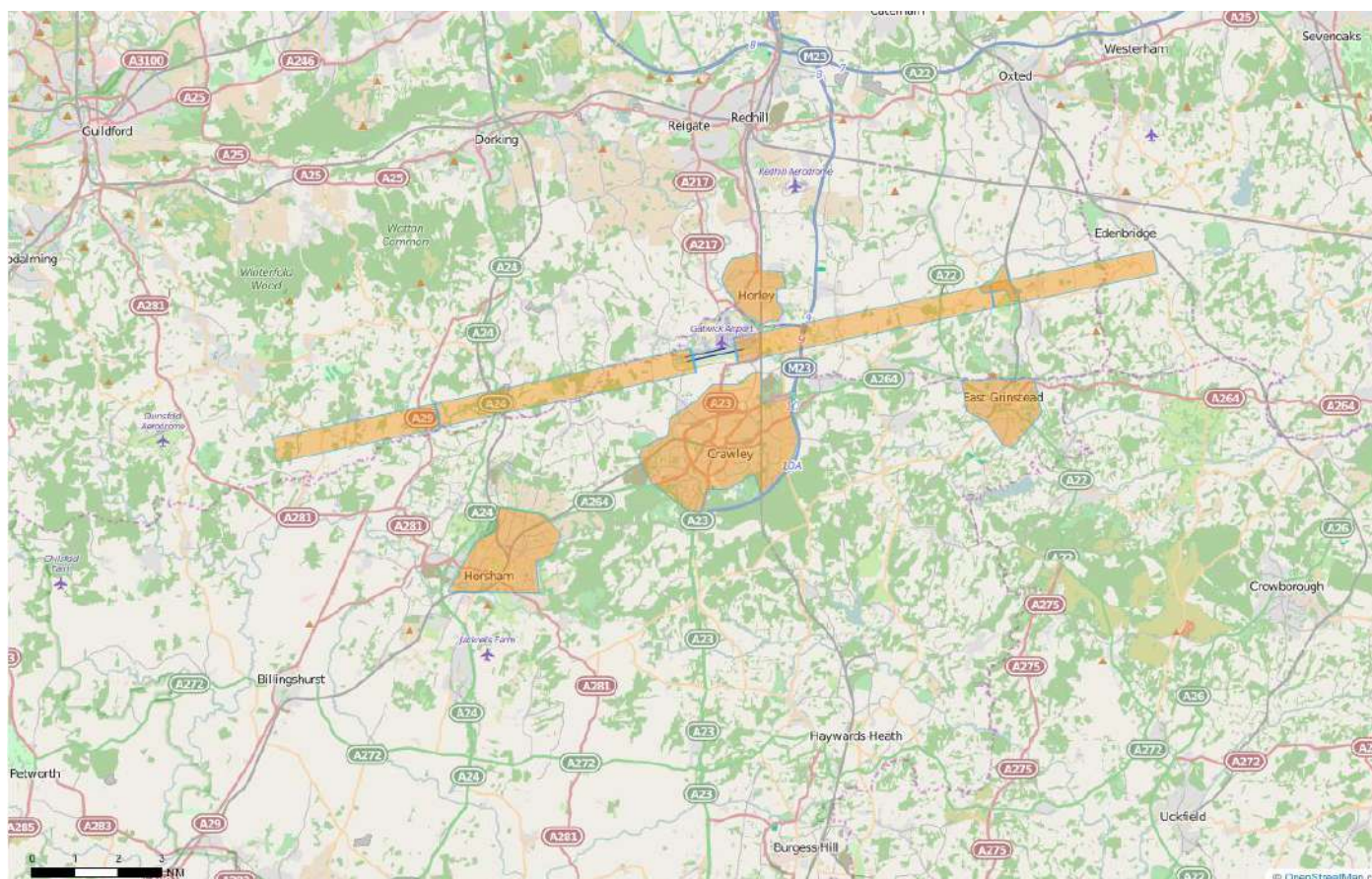
A) DAY TIME JOINING HEIGHT (0700-2300)

EGKK AD 2.21 (13(a)) *Where the aircraft is using the ILS in IMC or VMC it shall not descend below 2,000ft (Gatwick QNH) before intercepting the glidepath, nor thereafter fly below the glidepath. This is aimed at keeping aircraft as high as possible for as long as possible.*

The map below shows the congested urban areas, a series of gates running parallel to the extended runway centreline for around 6NM east and west of the airport, used to monitor low arrivals, joining the ILS below 2,000ft.

There were 38,316 arrivals recorded by the Airports Noise and Track Keeping system between 1st April and 30th June 2019. The joining point statistics are being reviewed in the new NTK system and the report will be available soon. The Airspace Office are continuing to monitor the joining point of arrivals into Gatwick.

THE FOLLOWING MAP ILLUSTRATES THE ANALYSIS ZONES USED FOR LATE AND LOW ARRIVALS FOR BOTH ENDS OF THE AIRFIELD AND THE CONGESTED URBAN AREAS



B) NIGHT TIME JOINING HEIGHT AND DISTANCE (2300-0700)

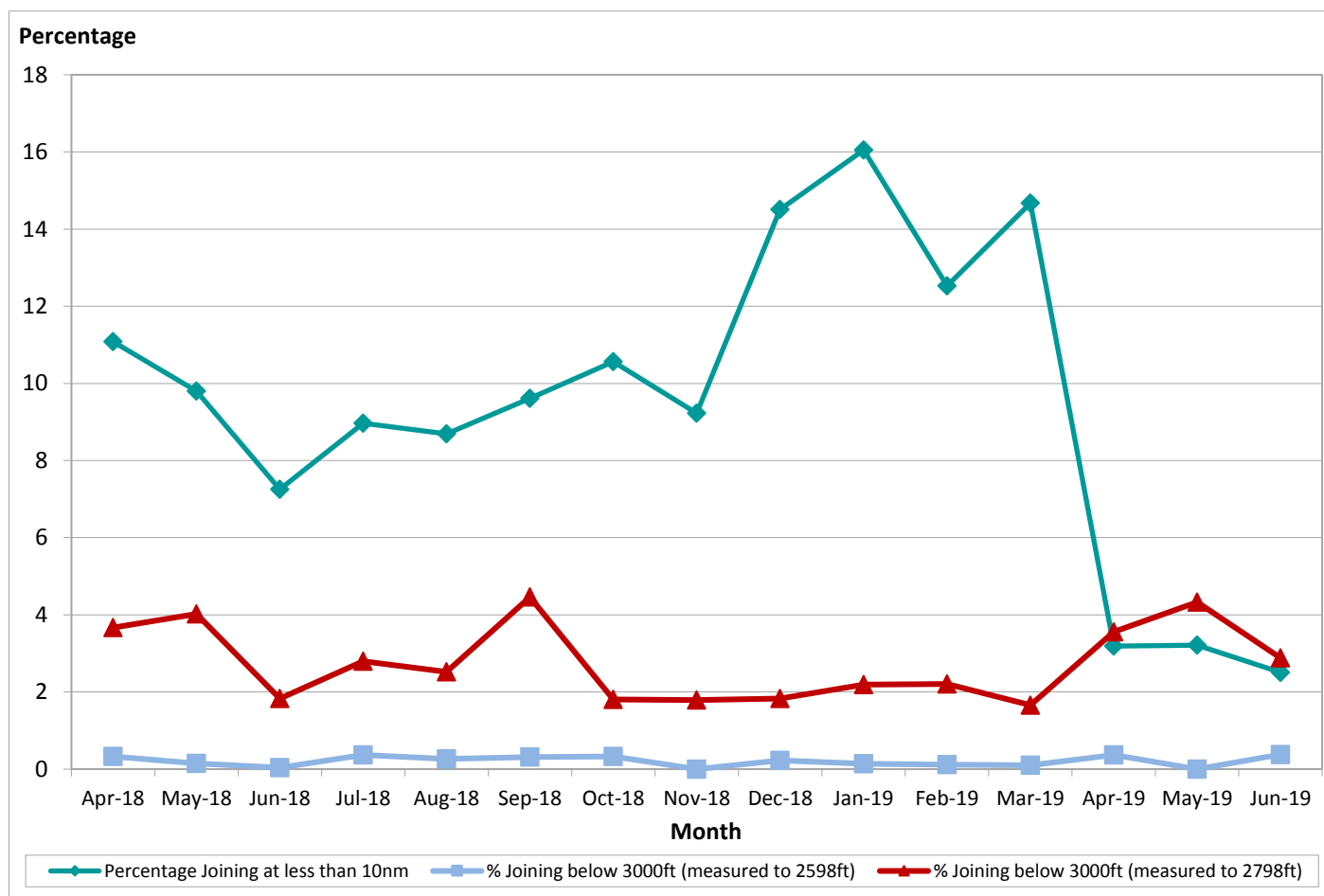
EGKK AD 2.21 (14) Aircraft which land at Gatwick Airport - London between the hours of 2300 (local) and 0700 (local), whether or not making use of the ILS localizer and irrespective of weight or type of approach, shall not join the centre-line:

- a) below 3000ft, or
- b) closer than 10 nm from touchdown.

This aims to keep aircraft higher for longer and avoid overflying areas en route to the ILS below 3,000ft.

During standby runway operations, usually at night during maintenance of the main runway, the threshold is in a different location than the main runway (a different radar map is used for the extended centreline) so the 10 nautical mile (NM) marker is in a slightly different location. As we are complying with 10NM on the standby runway, this may be flagged as a join inside 10NM on the main runway.

THE GRAPH BELOW ILLUSTRATES THE NIGHT TIME JOINING POINTS OVER THE 15 MONTH PERIOD



Following the implementation of the new NTK system, all of the data analysis processes were re-created. These processes were checked and once confirmed, the resulting data outputs were compared to the previous Casper system. In almost all cases the data was comparable, however, this particular data set (aircraft joining the ILS at less than 10NM

in the night period) does not align with the Casper system over-reporting. It is not possible to explore how Casper calculated this value and as the new process has been independently checked, all analysis presented beyond the 1st April 2019 will use this new process.

Go-Around Statistics 2004 - 2019

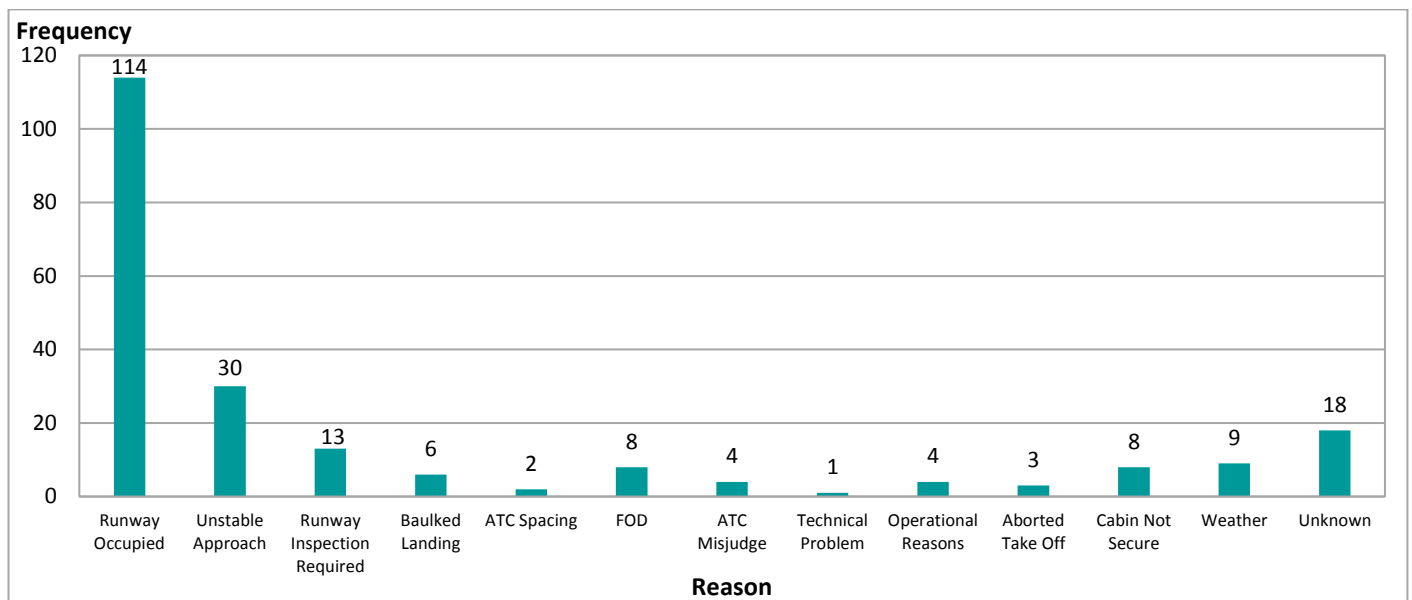
A go-around is a procedure adopted when an arriving aircraft on final approach aborts landing by applying take off power and climbing away from the airport. It is a set procedure to be followed by the flight crew in the event of an aircraft being unable to land. The procedure is published so that ATC and the pilots can anticipate where the aircraft will go following the decision to go-around.

The standard missed approach procedure applicable to Gatwick Airport requires aircraft that are aborting their approach to climb to 3,000ft straight ahead, then, on passing 2,000ft or 1DME (distance measuring equipment) (whichever is later), turn heading 180. This may or may not result in aircraft overflying the town of Crawley or outlying areas.

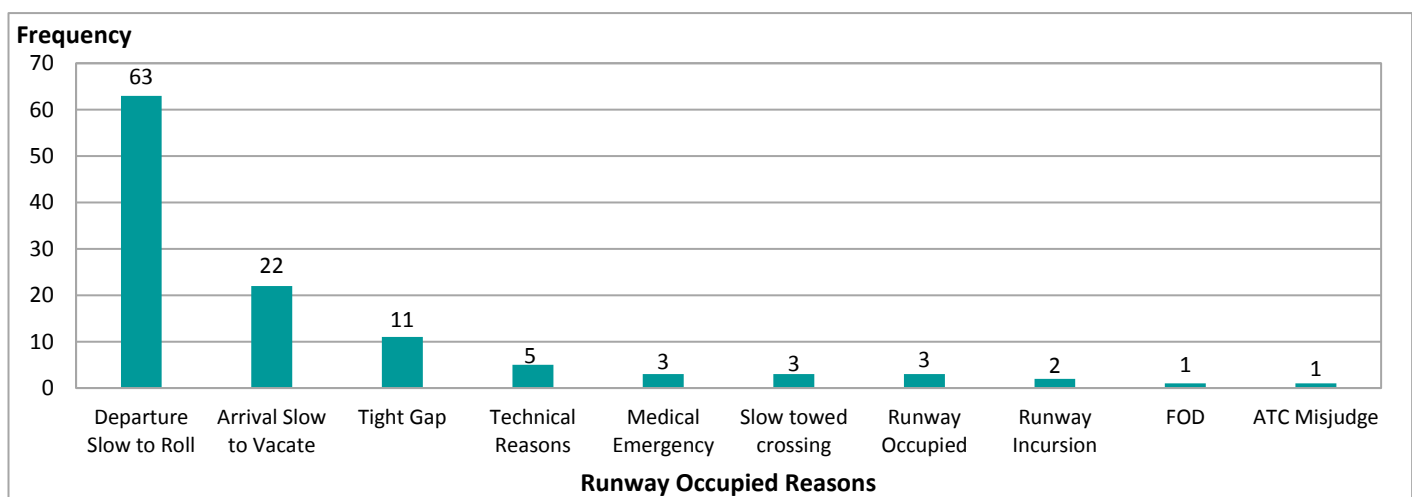
The number and reasons for go-arounds are routinely discussed at FLOPSC meetings and Pilot Forums. All parties are focussed on minimising the number of occasions when a go-around is required, but expect some to occur given the fact that Gatwick is a busy single runway airport.

It should be stated that there are well established standard procedures which both pilots and controllers are trained in and are familiar with. Gatwick Airport Limited, as the airport operator, actively encourages airlines operating at the airport to fly to the best possible environmental standards; however, safety must and always will be the number one priority.

ANS CURRENTLY RECORD GO-AROUNDS UNDER ONE OF THE FOLLOWING CAUSAL FACTORS (APRIL - JUNE 2019)



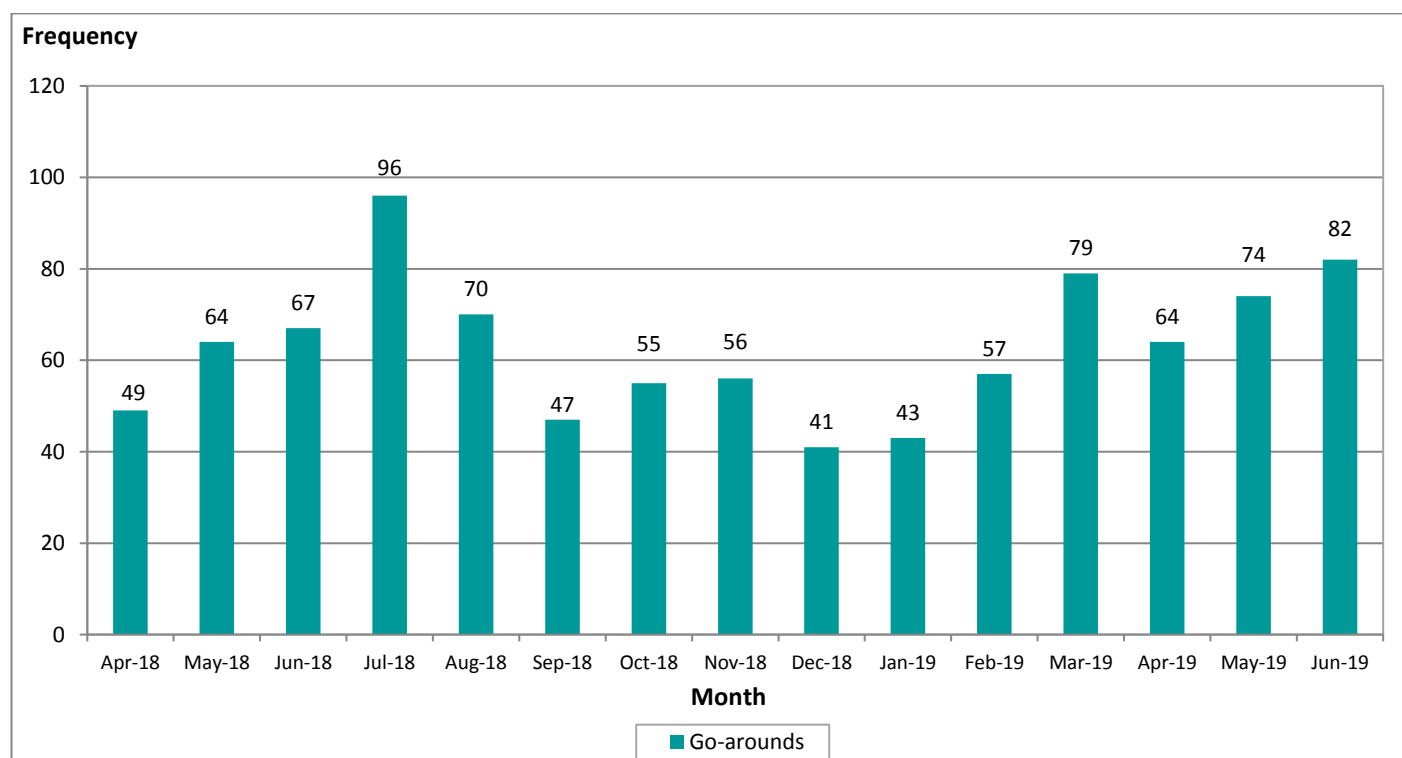
THE REASONS GIVEN BY ANS FOR GO-AROUNDS DUE TO RUNWAY OCCUPANCY DURING THE THREE MONTH PERIOD



THE TABLE BELOW ILLUSTRATES GO-AROUND STATISTICS 2004 – 2019

Year	Total	Total Arrivals	% of Arrivals
2004	344	124665	0.28
2005	450	129509	0.35
2006	405	130954	0.31
2007	434	133271	0.33
2008	359	131858	0.27
2009	455	125861	0.36
2010	364	120263	0.30
2011	386	125541	0.31
2012	520	123408	0.42
2013	473	125290	0.38
2014	512	129966	0.39
2015	520	133869	0.39
2016	642	139998	0.46
2017	618	142956	0.43
2018	699	141950	0.49
2019 (Jan-Jun)	399	69491	0.57

THE GRAPH BELOW ILLUSTRATES TOTAL NUMBER OF GO-AROUNDS PER MONTH



Night Flights

The Secretary of State, in exercise of his powers under Section 78 of the Civil Aviation Act 1982, has imposed restrictions at Gatwick Airport on aircraft operating at night. These restrictions are in place to limit and mitigate noise disturbance from aircraft operating at night and to prohibit aircraft of specified descriptions from operating, and also to limit the number of occasions on which other aircraft may take off or land.

The night flying restrictions are divided into summer and winter seasons which coincide with the start and end of British Summer Time. They consist of a movement limit and a quota count system. The quota count (QC) means that points are allocated to different aircraft types according to how noisy they are. The noisier the aircraft type, the higher the points allocated. This provides an incentive for airlines to use quieter aircraft types. Aircraft are certified by ICAO according to the noise they produce and are classified separately for both take-off and landing.

For the purposes of night flying operations, the night quota period is defined as the period between 2330-0600 (local time). In addition, there are two further shoulder periods of 2300–2330 and 0600–0700 (local time), where other restrictions apply to the scheduling and operation of aircraft of specified descriptions.

The current restrictions on night flying came into force in October 2017, to remain in place until 2022 for all the London Airports. At Gatwick, this regime maintained the status quo for movements and QC until the Winter 2018/19 season. This season sees a reduction in the QC limit and a new QC value of 0.125 applied to some aircraft which were classified as QC0. As of October 2017, all aircraft movements have counted towards the night quota limit, including those previously exempt. This will further incentivise the use of quieter aircraft as an Airport can continue the use of its movement allowance but the average noise produced by an aircraft cannot increase.

RESTRICTIONS

Winter	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Movements	3250	3250	3250	3250	3250	3250
Limits						
Quota Points	2000	2000	1785	1785	1785	1785

Summer	2017	2018	2019	2020	2021	2022
Movements	11200	11200	11200	11200	11200	11200
Limits						
Quota Points	6200	6200	5150	5150	5150	5150

Overleaf is a mid-season report for summer 2019 which commenced at 01:00 on the 31st March 2019. The total number of movements available for the summer season is 11525.

DISPENSATIONS

In accordance with the DfT guidelines, there may be times when an aircraft can be disregarded from the night flight restrictions. As a general rule these are unforeseen circumstances outside the control of either the Airport or Airline resulting in the unscheduled use of a night slot. Examples of such instances include humanitarian relief flights, emergencies, VIP visits, delays as a result of disruption leading to passenger hardship, ATC disruption or airspace closure caused by a volcanic ash cloud. The rules related to dispensations are strictly adhered to and all instances are reported to the DfT within 7 days.

There have been 168 dispensations applied so far this summer season. The reasons were as follows:

- 95 dispensations were applied due to adverse weather conditions.
- 42 were applied due to ATC flow restrictions.
- 23 were applied due to ATC strike and computer problems.
- 7 were applied due to low visibility conditions.
- 1 was applied due to a government approved dispensation.

QC4, QC8 and QC16 MOVEMENTS

There have been no QC8 or QC16 movements during either the night quota or shoulder periods. These QC values are not to be scheduled to take off or land between 2300 and 0700. There were no unscheduled QC4 movements during the night quota period. QC4 types may not be scheduled to take off or land during this period.

London Gatwick

AIRPORT MOVEMENTS and QUOTA SUMMARY to WEEK 13 (31 MARCH 2019 to 29 JUNE 2019 inc.)

Season Quota Points Limit 5,150 Season Movement Limit 11,200
Total Quota Points Allowed 5,150 Total Movements Allowed 11,200

Wk No.	Week Ending Date	QC0 No.	QC0.125 No.	QC0.125 Value	QC0.25 No.	QC0.25 Value	QC0.5 No.	QC0.5 Value	QC1 No.	QC1 Value	QC2 No.	QC2 Value	QC4 No.	QC4 Value	Total Quota Value	Mvmts Against Limit	Not Cont'd Delays	Not Cont'd Govt	Not Cont'd Emgcy	Total Arvls No.	Total Arvls %	Total Deps No.	Total Deps %	Total Rnwy Mvmts
1	06/04/2019	0	20	2.500	101	25.250	30	15.000	5	5.000	1	2.000	0	0.000	49.750	157	0	0	0	138	87.9	19	12.1	157
2	13/04/2019	0	21	2.625	158	39.000	39	19.500	10	10.000	1	2.000	0	0.000	73.125	227	0	0	0	202	89.0	25	11.0	227
3	20/04/2019	0	23	2.875	159	39.750	45	22.500	16	16.000	1	2.000	0	0.000	83.125	244	0	0	0	210	86.1	34	13.9	244
4	27/04/2019	0	27	3.375	137	34.250	41	20.500	13	13.000	0	0.000	0	0.000	71.125	218	0	0	0	188	86.2	30	13.8	218
5	04/05/2019	0	28	3.500	142	35.500	68	34.000	10	10.000	1	2.000	0	0.000	85.000	249	7	0	0	216	84.4	40	15.6	256
6	11/05/2019	3	38	4.750	141	35.250	88	43.000	19	19.000	1	2.000	0	0.000	104.000	288	28	1	0	279	88.0	38	12.0	317
7	18/05/2019	0	28	3.500	167	41.750	98	49.000	20	20.000	1	2.000	0	0.000	116.250	314	0	0	0	283	90.1	31	9.9	314
8	25/05/2019	0	21	2.625	162	40.500	108	54.000	30	30.000	0	0.000	0	0.000	127.125	321	0	0	0	281	87.5	40	12.5	321
9	01/06/2019	0	37	4.625	180	45.000	103	51.500	29	29.000	2	4.000	0	0.000	134.125	351	7	0	0	318	88.8	40	11.2	358
10	08/06/2019	0	33	4.125	209	52.250	107	53.500	32	32.000	2	4.000	0	0.000	145.875	383	14	0	0	349	87.9	48	12.1	397
11	15/06/2019	0	30	3.750	224	56.000	114	57.000	23	23.000	3	6.000	0	0.000	145.750	394	30	0	0	370	87.3	54	12.7	424
12	22/06/2019	0	35	4.375	219	54.750	119	59.500	23	23.000	3	6.000	0	0.000	147.625	399	35	0	0	378	87.1	56	12.9	434
13	29/06/2019	0	33	4.125	220	55.000	116	58.000	31	31.000	3	6.000	0	0.000	154.125	403	35	0	0	382	87.2	56	12.8	438
TOTALS		3	374	46.750	2217	554.250	1074	537.000	261	261.000	19	38.000	0	0.000	1437.000	3948	156	1	0	3594	87.6	511	12.4	4105

Quota Points Available 3,713 Movements Available 7,252
Quota % Points Used 27.9 Movements % Used 35.3

Note 1 Not Cont'd Delays

Note 2 Not Cont'd Gov't

Note 3 Not Cont'd Emrg

Delays likely to lead to serious congestion and delays resulting from widespread disruption of Air Traffic.

Exemptions granted by Gov't (VIP Passengers, Emergency Relief).

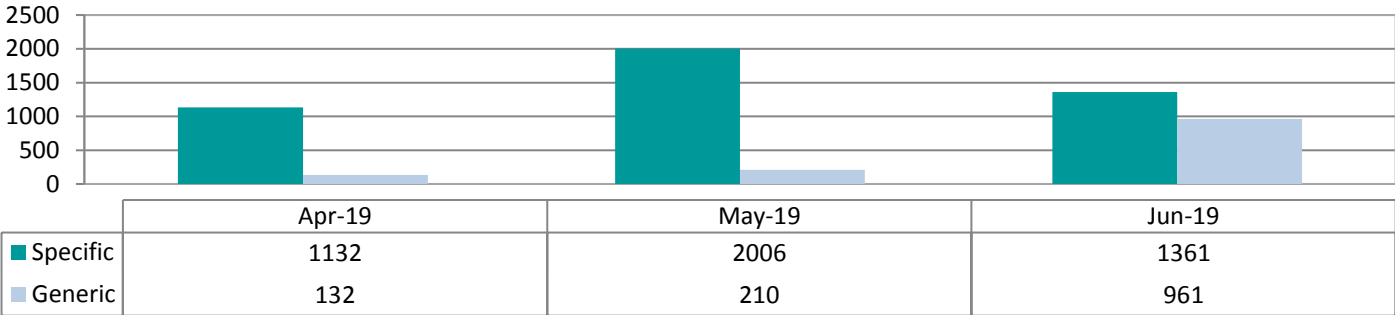
Emergency Take-offs and Landing

Noise Complaints

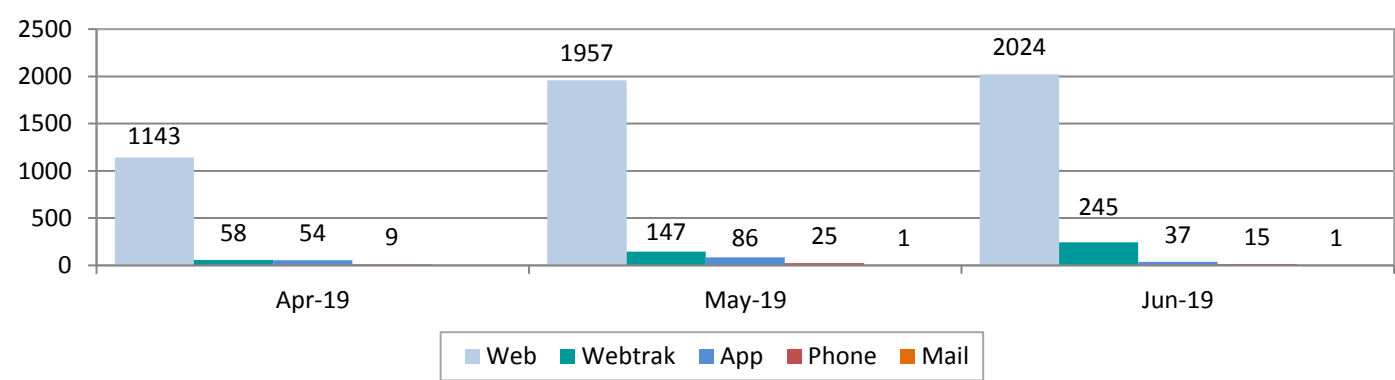
It is important that we understand the issues of noise disturbance from individuals and communities who live around the Airport. By studying the complaints we receive and by communicating with the affected towns and villages surrounding the Airport, we believe that this gives us a greater understanding of the issues related to noise.

This means that we can work together to improve the noise climate around the Airport. The complaints we have received are either about specific aircraft events that cause disturbance or generic complaints about airport operations in general. The following charts provide an analysis of the complaints submission channels.

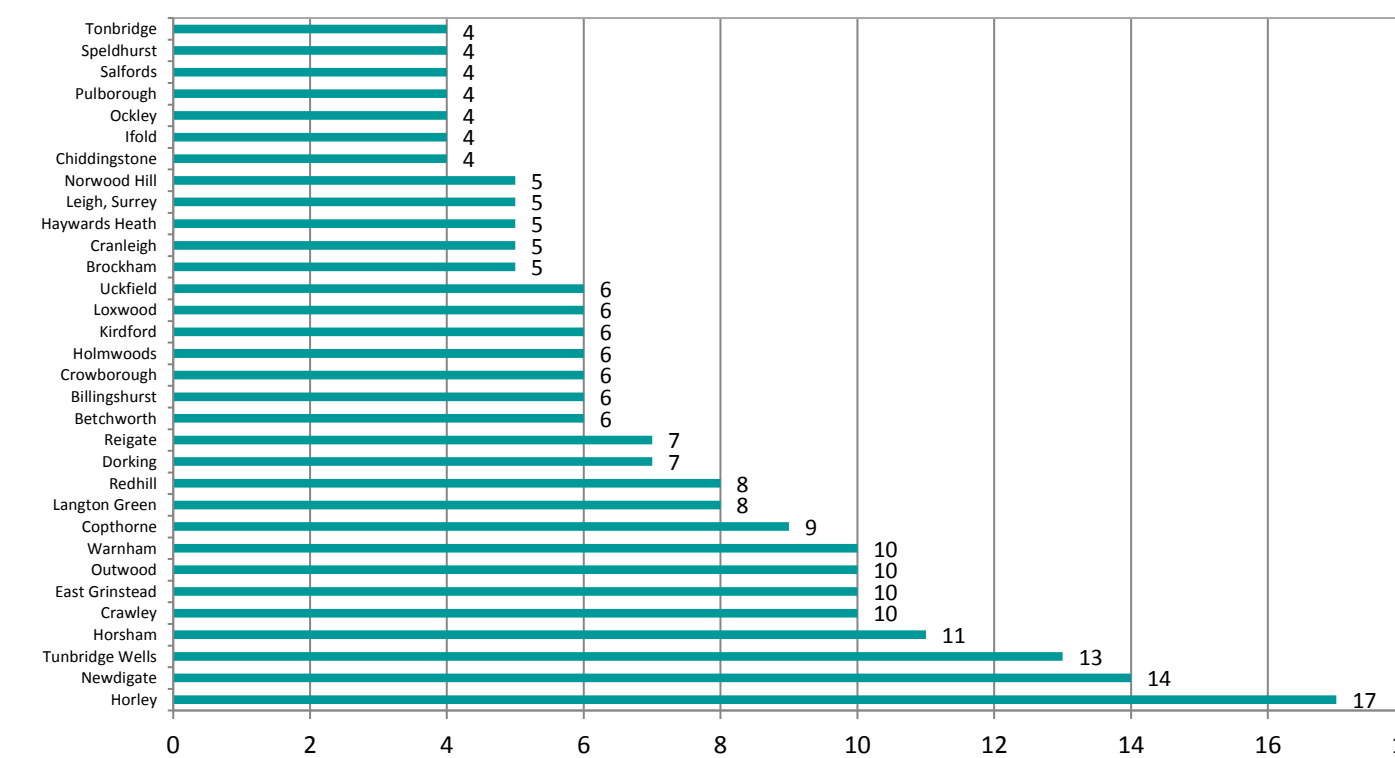
COMPLAINTS RECORDED BY MONTH



METHOD OF COMPLAINT



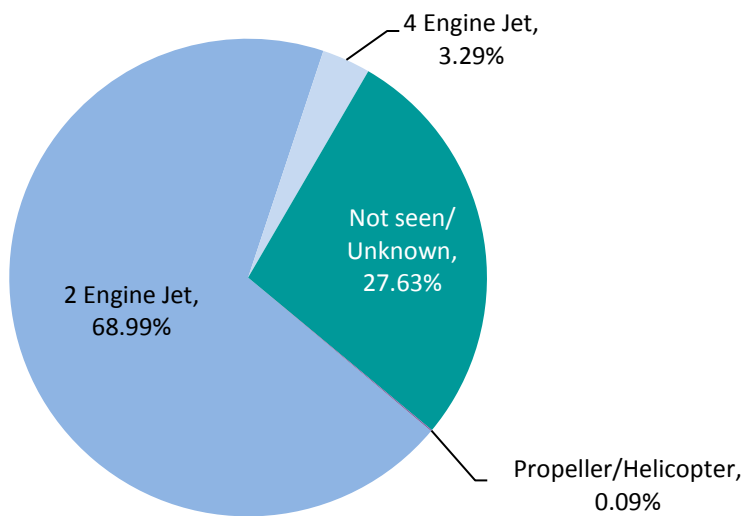
NUMBER OF INDIVIDUAL COMPLAINANTS BY TOWN/VILLAGE



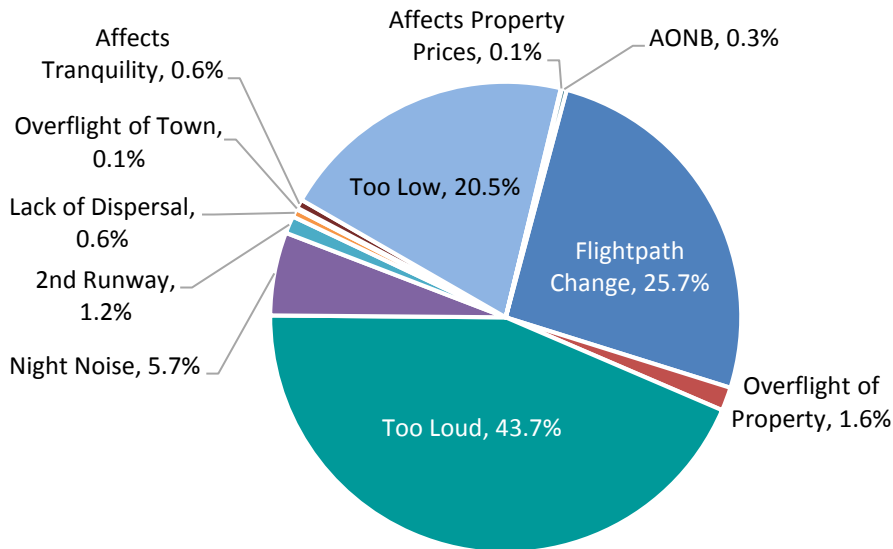
Noise is subjective and can affect people in different ways. Some people can tolerate a certain noise level whilst it can cause disturbance to others.

Below shows the breakdown of the types of aircraft that are being complained about as well as the main reasons for concern.

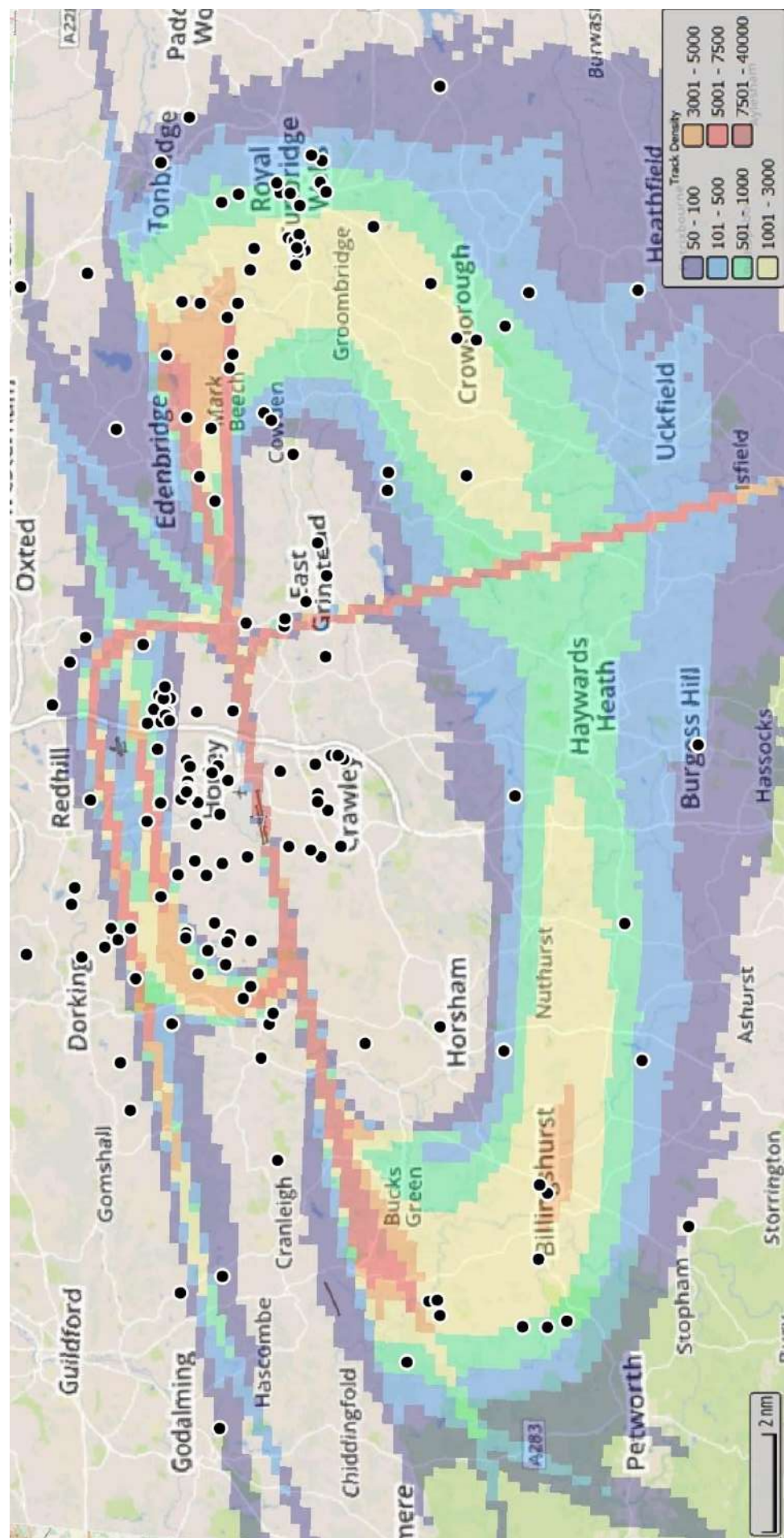
CATEGORIES OF AIRCRAFT TYPES FROM SPECIFIC COMPLAINTS



PERCENTAGE OF COMPLAINT CONCERNS



THE MAP BELOW ILLUSTRATES THE LOCATION OF NOISE COMPLAINTS RECEIVED BETWEEN APRIL AND JUNE 2019



Ground Noise Complaints

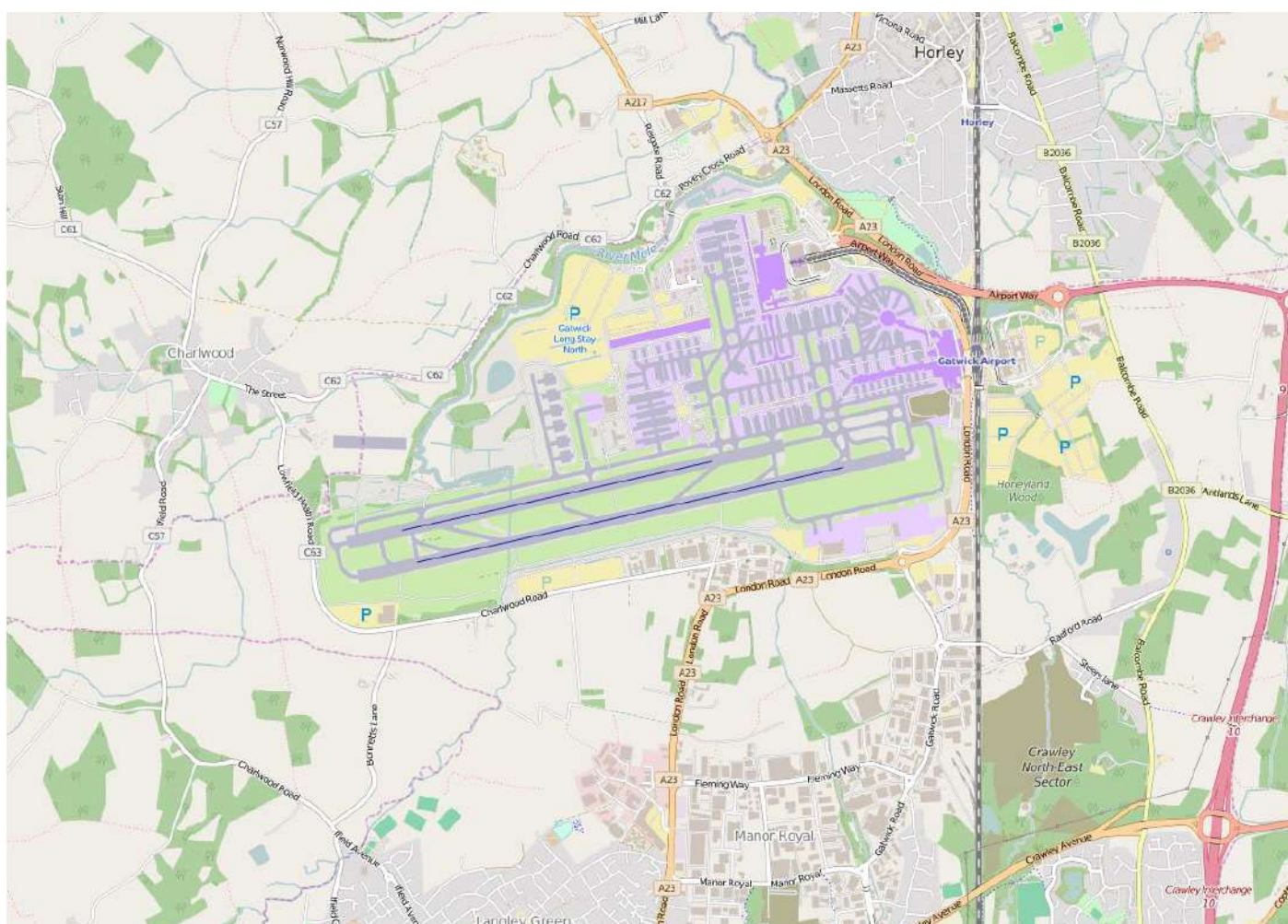
We occasionally receive complaints about disturbance from noise from within the boundary of the airfield. These can be caused by the normal operation of aircraft moving about the airfield, taking off and landing. Additional sources of noise disturbance can be the use of Auxiliary Power Units (APU) by aircraft on stand or the testing of engines following maintenance or repair (engine runs).

Strict regulations exist to minimise this disturbance, which includes a ban on engine running during the night. Details of any ground noise complaints are outlined below.

Comment:

There were no recorded ground noise complaints during this three month period.

THE MAP BELOW ILLUSTRATES THE GATWICK AIRPORT AIRFIELD



For more information visit us at: <http://www.gatwickairport.com/aircraftnoiseandairspace>

Glossary

ACoP – Arrivals Code of Practice

AIP – Aeronautical Information Publication

AMSL – Above Mean Sea Level

ANS – Air Navigation Solutions

APU – Auxiliary Power Unit - A small auxiliary engine on an aircraft used to provide electrical power when the main engines are shut down.

ATC – Air Traffic Control

CAA – Civil Aviation Authority

CDO – Continuous Descent Operations - A noise abatement procedure for arrivals used to avoid periods of level flight, reducing noise and emissions.

dBA – A-weighted decibels that takes closest account of human hearing. It is used to measure aircraft noise.

DfT – Department for Transport

DME – Distance measuring equipment

EGKK or **LGW** – London Gatwick Airport

FLOPSC – Flight Operations Performance and Safety Committee

FPT – Flight Performance Team

Go-Around – A go-around is an aborted landing of an aircraft which is on approach to the runway.

ICAO – International Civil Aviation Organisation

ILS – Instrument Landing System

IMC – Instrument Meteorological Conditions

KPI – Key Performance Indicators

Lmax – Maximum noise level

NATS – National Air Traffic Services

nm – Nautical Miles

NPR – Noise Preferential Route

NTK – Noise and Track Keeping monitoring system. Casper was replaced with ANOMS on 1st April 2019.

P-RNAV – Precision Route Navigation

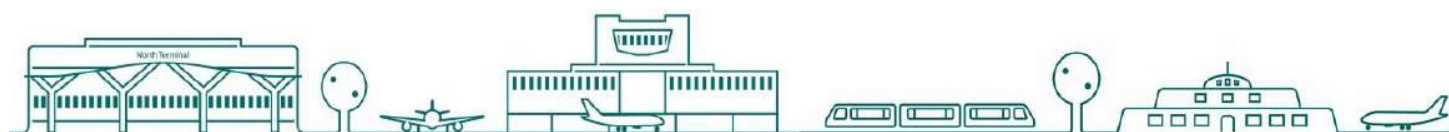
QC – Quota Count

QNH – The barometric pressure at sea level (QFE is the barometric pressure at the Airport).

SID – Standard Instrument Departure - A route out of UK airspace assigned to departing aircraft with an NPR in the first section.

Vectoring – Air Traffic Control procedure turning a departure off an NPR onto a more direct heading.

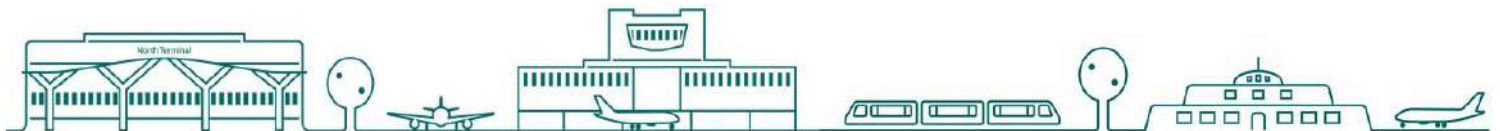
VMC – Visual Meteorological Conditions



YOUR LONDON AIRPORT
Gatwick

Gatwick Airport Airspace Office Quarterly Report

This report covers the period
(1st July – 30th September 2019)



YOUR LONDON AIRPORT
Gatwick

Contents

Introduction 2

Runway Direction 4

The Aeronautical Information Publication 5

Departures - Noise Infringements 6

Departures - Initial Climb Performance..... 6

Departures - Track Keeping 7

Departures – Over Congested Areas 12

Arrivals – Continuous Descent Operations (CDO) 14

Arrivals – Over Congested Areas 19

Go-Around Statistics 22

Night Flights 23

Noise Complaints 27

Ground Noise Complaints 29

Glossary 31

Introduction

ABOUT THIS REPORT

This report is produced by the Gatwick Airspace Office (formerly known as the Flight Performance Team). This team is responsible for recording, investigating and responding to aircraft noise enquiries as well as monitoring airline compliance to noise mitigation measures as detailed in the UK Aeronautical Information Publication (AIP). This department also actively engages with the airlines to improve their adherence to the above noise mitigation measures and in addition manages the night-time restrictions on flying at Gatwick.

This report contains detailed data on aircraft activity at Gatwick including the adherence to the noise mitigation measures detailed in the UK AIP, a report on night flying during the period, and an analysis of noise complaints received during the period.

KEY MONITORING INDICATORS – 1ST JULY – 30TH SEPTEMBER 2019

Parameter		12 month performance averages ¹			
		2019 ⁷	2018 ⁶	2011	2006
Track keeping performance (% on track)	▲	98.24%	98.20%	97.47%	98.17% ³
24hr CDO (% achievement) ⁴	▼	89.76%	90.70%	90.49%	80.79%
Day/Shoulder CDO (% achievement)	▼	89.80%	90.86%	90.19%	79.9%
Core night CDO (% achievement)	▲	89.25%	88.93%	93.96%	89.6%
1,000ft Infringements (No.)	-	0	0	3	11
1,000ft Infringements (No. below 900ft)	-	0	0	1	6
Departure Noise Infringements (Day)	▲	1	0	0	10
Departure Noise Infringements (Night/Shoulder)	-	0	0	4	2
Individual complainants	▼	713	851	343	587
Total noise complaints received ⁵	▲	24,969	22,111	2,673	4,791
Enquiry response performance target is 95% within 8 days (July to September 2019)	▼	79.15%	99.97%	KPI 95%	
West/East Runway Split (%)	-	67/33	69/31	67/33	68/32

¹ The colour indicates the most recent 12 month performance compared to the 2011 END Baseline, with green showing improvement and red a decline in performance, the directional arrow indicating performance compared to the previous 12 month performance.

² Track keeping statistics measurement changed on the 26th May 2016 due to the Route 4 amendment, all SID's are now included in the total figure.

³ This figure did not include deviations from prop types or those due to weather.

⁴ As a result of the Independent Review of Arrivals, it was recommended (Imm-05) that the CDO monitoring altitude be increased from 6,000ft to 7,000ft as of 1st August 2016.

⁵ Complaints are recorded in line with our published complaints handling policy. The revised policy, published in November 2014, advised that only one complaint per day is recorded per individual. On the 29th September 2016, there was a further revision to our complaints handling policy which now allows individuals to make multiple complaints per day and these will each be recorded. It is important to note that since January 2018, complaints which have been deleted from the NTK system are no longer counted in the complaint statistics when they had been previously. Complaints are only deleted if they contain abusive, obscene or threatening language.

⁶ It should be noted that there were two separate NTK radar outages to the Casper flight tracking system which occurred between the 11th and 12th July 2018 and between 10th and 13th August 2018 inclusive. As a result of these outages, data has been omitted from the statistics for these dates and so these figures may not be exact for the period. Complaint data is unaffected.

⁷ It should be noted that due to the termination of the Casper NTK system on 31st March 2019, the figures for Q1 2019 only cover 1st January – 30th March 2019 inc.

Executive Summary

Performance Headlines

AIRPORT OPERATIONS

Between 1st July and 30th September 2019, there were a total of 81,885 fixed wing aircraft movements at Gatwick. (N.B. there was an outage to the Casper NTK system in Q3 2018 which meant some runway data was omitted so it is not useful to include a comparison of the totals this quarter). The direction of operation is determined by wind direction and this was split 76% on the westerly runway and 24% on the easterly runway for the period. The 18 year average for the split in runway usage is approximately 68% westerly and 32% easterly.

STANDBY RUNWAY (26R/08L) USAGE

Although Gatwick has the main runway and the 'reserve' or standby runway, they cannot be operated simultaneously.

The standby runway is normally only utilised during the night when maintenance on the main runway is planned. During these three months, there were a total of 1,294 movements from the standby runway.

TRACK KEEPING

Track keeping performance has increased slightly compared to the previous year's performance, details of which will follow later in this report. As part of our continuing commitment to increase on-track performance, the Airspace Office continues to engage with the airlines directly and through the Flight Operations Performance and Safety Committee (FLOPSC) on a range of initiatives to monitor compliance.

WOULD YOU LIKE TO KNOW MORE ABOUT AIRCRAFT NOISE OR TRACK A FLIGHT?

To track aircraft, see noise readings or make a complaint about aircraft noise at Gatwick you can visit our website: <http://www.gatwickairport.com/noise>

The website provides detailed maps on aircraft traffic around the airport as well as useful information on noise and statistics on aircraft movements. It also details the work we undertake with others in the aviation industry to try and alleviate the impact of our operations on both the local and wider community.

CONTINUOUS DESCENT OPERATIONS (CDO) PERFORMANCE

While the Noise and Track Keeping (NTK) system utilises the most up-to-date format of radar data currently available, the

algorithm that measures CDO performance has remained unchanged since the definition was initially defined several years ago. As part of a development project to improve the accuracy of CDO measurement, the Airspace Office has worked closely with NATS to upgrade the current algorithm. The core algorithm remains unaltered, although some additional rules have been added with the result that some marginal profiles, previously classified as CDO compliant, will now be re-classified as non-CDO flights. These changes came into effect from May 2015 and the resulting variance in recorded levels of performance is in the order of 1%, therefore we expect to see a minor drop off in recorded performance from this date. Historical observations have consistently shown a reduction in performance during the winter months due to instances of inclement weather.

It is important to note that as recommended by the Independent Review of Arrivals, the altitude at which CDO is measured has changed as of 1st August 2016, more details later in the report.

COMMUNITY NOISE MONITORING

In addition to fixed monitors located close to the ends of the runway, there are currently mobile noise monitors deployed at sites in Lingfield, Rusper, Cowden, Charlwood, South Holmwood, Withyham, Hever Castle, Rusthall, Alfold, Slinfold, Faygate, Newdigate, Ruckmans, Sidlow, Ifold, Kingsfold, Chiddingstone and Outwood.

For several years, we have run a programme of noise monitoring to get a better understanding of the levels of aircraft noise in the communities surrounding Gatwick Airport. The noise monitors provide a method of monitoring and recording noise from both aircraft, and background sources. This allows us to evaluate trends and make comparisons between the noise environments at different locations.

COMPLAINTS

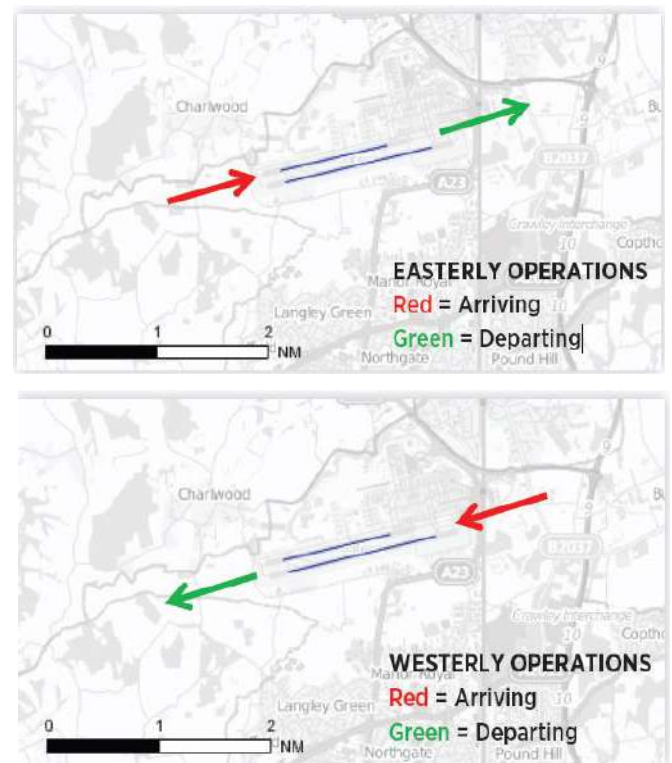
The number of recorded complaints has increased compared to the previous twelve months, however the number of complainants has decreased. Although the airport has been just as busy as it has in recent years, there has also been a large amount of publicity surrounding the community issues related to the Route 4 amendment and the airport's Draft Master Plan Consultation, which may be contributing factors for the number of complaints in this quarter.

The postcode areas with the greatest number of enquiries during the three month period were Tunbridge Wells, Horsham, Outwood and Newdigate. The number of individual complainants between July and September was **389**. Complaints about aircraft operations are processed in accordance with our published Complaints Handling Policy. Details of this policy are available on our website.

Runway Direction

The graph below represents the direction of runway operation at Gatwick. Aircraft operating in a westerly direction take off towards the west and land from the east. Aircraft operating in an easterly direction take off towards the east and land from the west. Although the long term average is approximately 68:32 in favour of westerly operations, it is not unusual to experience long periods of prolonged operation in either one direction or another.

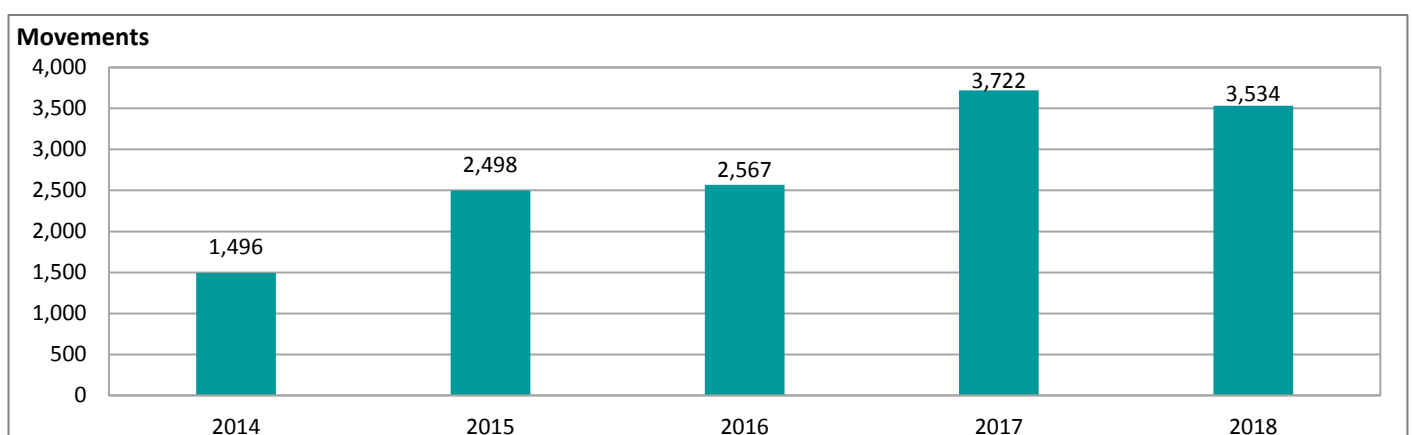
The Airport has one main runway. When the main runway is out of operation there is a standby runway adjacent to the main runway that can be used. This runway is shorter than the main runway and is not equipped with an Instrument Landing System and under current regulations, due to its proximity to the main runway, it cannot be used at the same time. The standby runway is normally only used during periods of essential maintenance on the main runway and this is normally carried out during night time when the Airport is not as busy.



STANDBY RUNWAY MOVEMENT TABLE

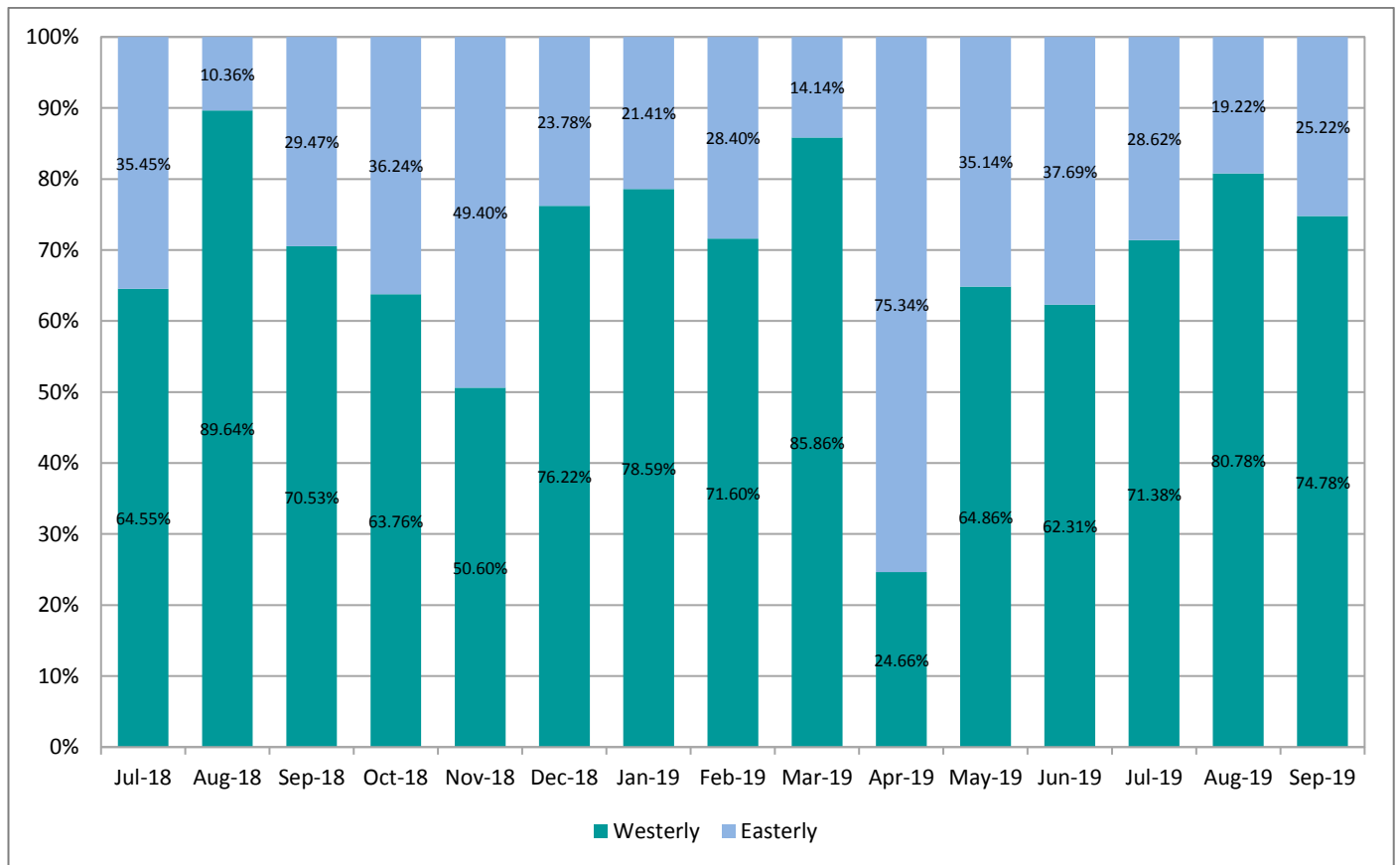
Month	Number of Standby Runway Movements	% of Movements in Month
Jul-18	392	1.4%
Aug-18	87	0.3%
Sep-18	630	2.3%
Oct-18	18	0.1%
Nov-18	41	0.2%
Dec-18	39	0.2%
Jan-19	71	0.4%
Feb-19	34	0.2%
Mar-19	74	0.3%
Apr-19	123	0.5%
May-19	218	0.8%
Jun-19	376	1.4%
Jul-19	723	2.6%
Aug-19	112	0.4%
Sep-19	459	1.8%

NUMBER OF STANDBY RUNWAY MOVEMENTS UTILISED OVER THE PAST 5 YEARS



RUNWAY DIRECTION SPLIT

THE GRAPH BELOW SHOWS THE SPLIT OVER THE 15 MONTH PERIOD (JULY 2018 - SEPTEMBER 2019)



The Aeronautical Information Publication

An AIP is defined by the International Civil Aviation Organisation (ICAO) as a publication issued by or with the authority of a state and containing aeronautical information of a lasting character essential to air navigation.

It is designed to be a manual containing thorough details of regulations, procedures and other information pertinent to flying aircraft in the particular country to which it relates. It is usually issued by or on behalf of the respective civil aviation administration.

The structure and contents of AIPs are standardized by international agreement through ICAO. AIPs normally have three parts - GEN (general), ENR (en route) and AD (aerodromes).

The Gatwick Aerodrome AIP contains details regarding the noise mitigation measures in place and adherence to these is reported in this section.

ADHERENCE TO NOISE MITIGATION MEASURES AS DETAILED IN THE GATWICK AIP

Each element of this report is preceded, where applicable, by the relevant AIP reference and summary text detailing the purpose of the requirement. Data is then presented on current performance.

It should be noted that Gatwick is 202ft above mean sea level (AMSL) and the NTK system measures height relative to Gatwick elevation and not sea level.

References in the AIP are usually above sea level (quoted as Gatwick QNH) and therefore need to be reduced by 202ft to be comparable with heights, as measured by the NTK system. For example, the requirement to join the ILS at 3,000ft would equate to 2,798ft in the NTK system.

No account is taken of the variability of heights as measured by the radar which, depending on the distance from the radar head, can be +/- 200ft from that indicated. This is obviously allowed for by NATS and ANS when managing operations.

Departures - Noise Infringements

DEPARTURE NOISE LIMITS (DAYTIME)

EGKK AD 2.21 (3(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 Lmax by day (from 0700 to 2300 hours local time) as measured at any noise monitoring terminal at any of the sites referred to in sub-paragraph (2). This is to ensure that departing aircraft do not exceed the stated level during the day.

Year	Number of Day Infringements	Year	Number of Day Infringements
2006	9	2013	0
2007	13	2014	0
2008	2	2015	0
2009	0	2016	0
2010	0	2017	0
2011	0	2018	0
2012	0	2019	1

DEPARTURE NOISE LIMITS (CORE NIGHT & SHOULDERS)

EGKK AD 2.21 (3(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 Lmax by night (from 2300 to 0700 hours local time) and that it will not cause more than 87 dBA Lmax 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). This is to ensure that departing aircraft do not exceed the stated levels during the night and shoulder periods.

Year	Number of Night & Shoulder Infringements	Year	Number of Night & Shoulder Infringements
2006	2	2013	0
2007	2	2014	0
2008	2	2015	0
2009	1	2016	1
2010	0	2017	2
2011	4	2018	0
2012	0	2019	0

*The daytime noise infringement was caused by a Virgin Atlantic Boeing 747-400 Series aircraft which breached the daytime noise limit of the fixed monitor at Russ Hill by 0.9dB (adjusted for tailwind) at 10:29 on the 11 May 2019. The airline has been fined £500 for the infringement and has paid. The funds have been issued to the Gatwick Airport Community Trust (GACT).

Departures - Initial Climb Performance

EGKK AD 2.21 (3(1)) After take-off the aircraft shall be operated in such a way that it is at a height of not less than 1000ft aal (above airfield level) at 6.5 km from start of roll as measured along the departure track of the aircraft. This is to ensure departing aircraft achieve at least that climb gradient in order to reduce the impact on the ground.

Comment:

There were no infringements of the 1,000ft rule during this three month period.

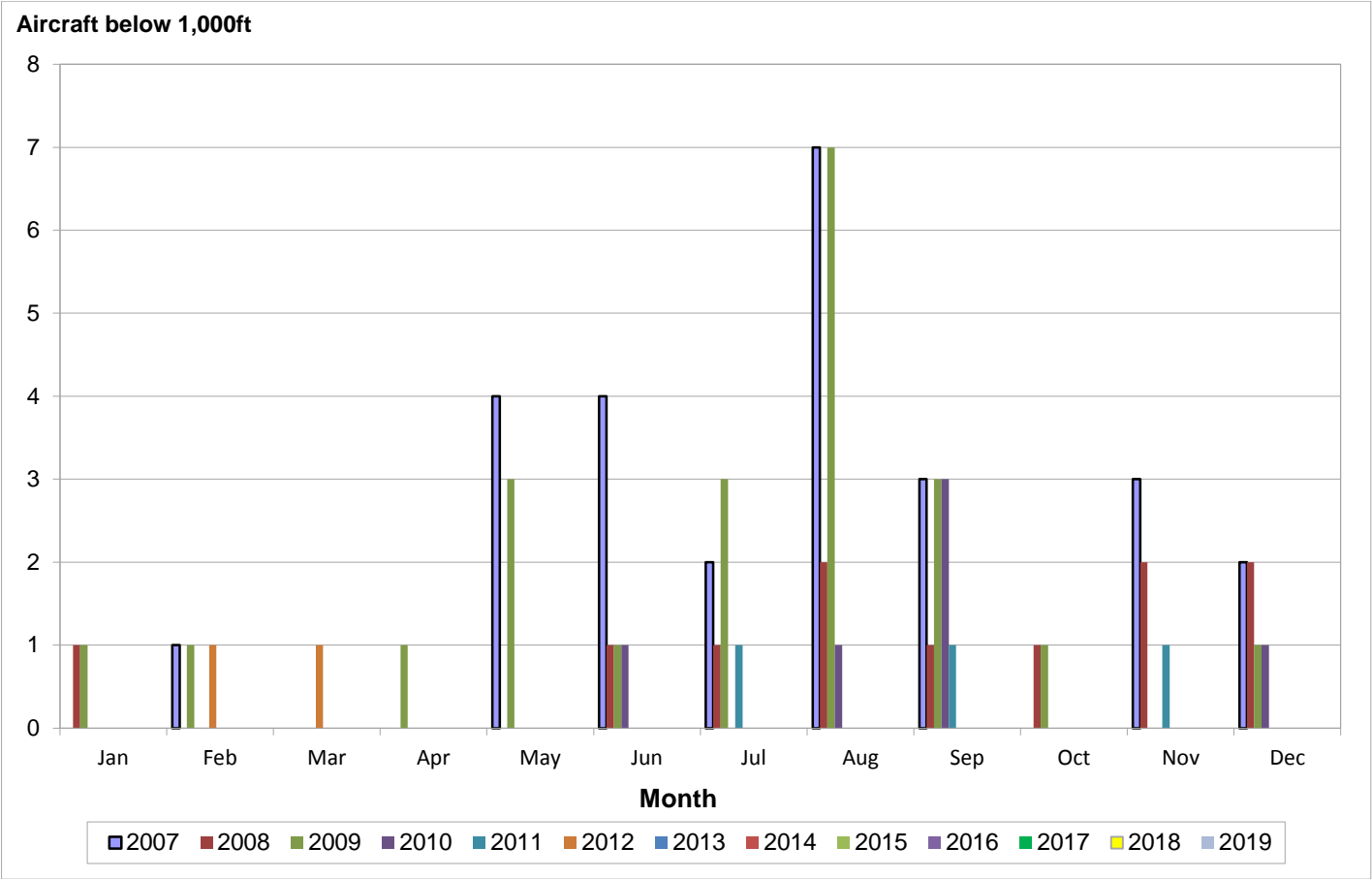
Historically, the summer months are typically the peak period for aircraft failing to meet the 1,000ft requirement, primarily due to the warmer weather which reduces aircraft climb performance.

1,000ft INFRINGEMENT TABLE

Year	Total Infringements	Year	Total Infringements
2006	11	2013	0
2007	26	2014	0
2008	11	2015	0
2009	22	2016	0
2010	6	2017	0
2011	3	2018	0
2012	2	2019	0

THE GRAPH BELOW ILLUSTRATES 1,000ft INFRINGEMENT PERFORMANCE SINCE 2007

Initial Climb Performance



Departures – Track Keeping

All jet aircraft leaving Gatwick Airport should follow flight paths known as Noise Preferential Routes (NPRs) up to a height of 3,000ft or 4,000ft depending on the route. An NPR consists of a 'centreline' and an associated compliance monitoring swathe (3km across, i.e. 1.5km either side of the NPR centreline). As long as aircraft remain within the corridor boundaries, they are deemed to be on-track. A map illustrating the NPRs at Gatwick is available overleaf.

Air Traffic Control (ATC) are responsible for the routing of aircraft once airborne and when 3,000ft or 4,000ft has been reached, they may give a flight a more direct heading, known as vectoring off of the route. This is subject to certain factors, including weather conditions and other traffic in the vicinity. Flights leaving the route below the required height are automatically flagged and details are sent to the airline for investigation. FLOPSC regularly review track keeping performance.

In 2012, Gatwick Airport publicly consulted on the implementation of a more modern form of aircraft navigation called P-RNAV (Precision Route Navigation). After having assessed all consultation feedback, in November 2013, the Civil Aviation Authority (CAA) granted the airport permission to implement P-RNAV on all of our departure routes. Implementing P-RNAV on the published departure routes has resulted in the tracks of departing aircraft being more concentrated within the boundaries of the current Noise Preferential Routes (NPR) conformance monitoring swathes, with one exception, 26LAM/Route 4 has always presented a challenge for modern jets as it was designed to accommodate the propeller-driven aircraft and early jets that were prevalent in the 1960's when the NPR was established.

Implementing P-RNAV on this route required aircraft to fly outside of the current NPR. Therefore, as approved by the CAA, aircraft with a P-RNAV departure SID on this route were not classified as off-track as they were following the published route. Following the introduction of P-RNAV in April 2014, the CAA conducted a Post Implementation Review (PIR) on all of the departure routes. The Review recommended that 26LAM/Route 4 be modified so that departing aircraft are compliant and remain within the published NPR swathe. It now requires all Standard Instrument Departure routes (SID's) to be counted in the track keeping statistics whereas previously, the Route 4 P-RNAV SID's were not included. Following the PIR and consultation, the CAA concluded that the modified Route 4 SID's achieved a satisfactory replication of the nominal track of the corrected conventional SID and confirmed the P-RNAV SID designs currently published in the UK Aeronautical Information Publication as permanent.

Following the quashing of the CAA's April 2017 decision by consent, Gatwick was working to revert the Route 4 conventional SID's to their position as they were before 7th April 2017. In support of this, Gatwick completed a comprehensive safety review, validated this with an independent Instrument Flight Procedure Designer and submitted the changes to the CAA for approval in May 2018. (Note: this change did not affect the distribution of traffic).

Recently the CAA was served by Plane Justice with a pre-action protocol – an early stage notification of a potential legal challenge – in relation to Route 4. This prompted the CAA as a consequence to instruct Gatwick to review these conventional Route 4 SIDs. Due to the potential change to the lateral track of the conventional departure routes this would require the development of a full Airspace Change Proposal (ACP). A rigorous legal process that is likely to take up to two years to achieve. Gatwick believes that this would introduce significant risk to the current, ongoing Route 4 ACP. Our key concern is that the proposal from the CAA risks confusing stakeholders and local residents with multiple consultations at the same time. It would also add significant delay to the already challenging timescales for the existing Route 4 consultation, which itself has the potential to generate understandable frustration among local communities looking for a swift resolution to this matter.

After careful consideration we have decided not carry out this review. We expect that our decision will allow the CAA to draw to a close the 2012 airspace change on Route 4 by requesting Gatwick de-notify the current temporary Route 4 RNAV Standard Instrument Departures (it is unlikely that this request will change the current distribution of traffic). This will de-couple both the 2012 airspace change and the one currently being led by Gatwick. It will also simplify the consultation process and allow Gatwick to continue its work following the correct procedure taking into account the various relevant factors to achieve an end result as soon as possible.

You can follow progress of this process using the CAA's Airspace Change Portal: <https://airspacechange.caa.co.uk/>

There has also been a modification to our 08CLN/Route 5 NPR which has been in place since the 30th March 2017, as advised by the CAA. Previously, aircraft were flying slightly to the south of the NPR centreline and this modification aims to better replicate the existing conventional SID route and bring aircraft back towards the centre. This was monitored by the CAA for a six month period until the 30th September 2017 to ensure the aircraft were operating as anticipated. Gatwick is awaiting a decision from the CAA regarding its status.

A map of the Crowborough area in Kent, England, overlaid with blue shaded regions representing flight paths or noise contours. The map includes major roads like the A29, A26, and A272, and towns such as Dorking, Reigate, Redhill, Horley, Crowley, and Crowborough. Several labels are placed over the map, each identifying a specific flight path by aircraft type and altitude:

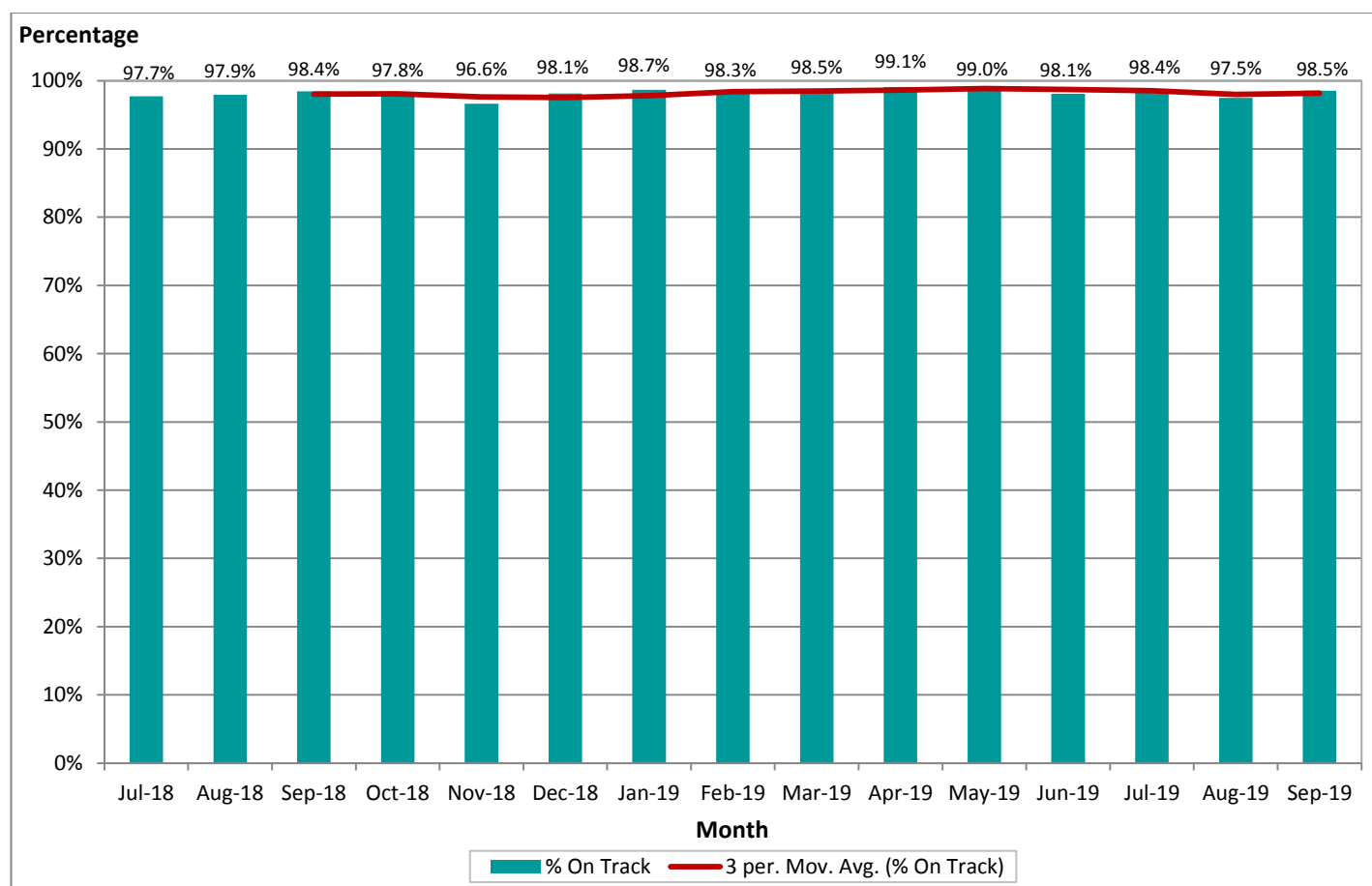
- 08 KEN 3,000ft**: Located near Reigate.
- 08 DTY 3,000ft**: Located in the northeast corner.
- 08 CLN 3,000ft**: A horizontal band across the middle-right.
- 08 SFD 4,000ft**: Located south of the CLN path.
- 26 LAM 4,000ft**: A large looped area in the center.
- 26 SAM 3,000ft**: Located on the left side.
- 26 WIZ 4,000ft**: A large area covering the central and southern parts.
- 26 BOG 4,000ft**: Located in the southwest, pointing towards Billingshurst.
- 26 SFD 3,000ft**: Located in the south-central area.

A scale bar at the bottom left indicates distances from 0 to 3 NM (nautical miles).

THE TABLE BELOW ILLUSTRATES TRACK KEEPING PERFORMANCE OVER 15 MONTHS

Month	Total			Westerly			Easterly		
	Deviations	Departures	%	Deviations	Departures	%	Deviations	Departures	%
Jul-18	300	13029	2.30%	288	8829	3.26%	12	4200	0.29%
Aug-18	253	12323	2.05%	249	10866	2.29%	4	1457	0.27%
Sep-18	209	13472	1.55%	202	9505	2.13%	7	3967	0.18%
Oct-18	274	12530	2.19%	258	7966	3.24%	16	4564	0.35%
Nov-18	327	9705	3.37%	314	4904	6.40%	13	4801	0.27%
Dec-18	189	10191	1.85%	184	7762	2.37%	5	2429	0.21%
Jan-19	131	9895	1.32%	130	7806	1.67%	1	2089	0.05%
Feb-19	167	9963	1.68%	160	7098	2.25%	7	2865	0.24%
Mar-19	165	10926	1.51%	165	9751	1.69%	0	1175	0.00%
Apr-19	109	11989	0.91%	88	2948	2.99%	21	9041	0.23%
May-19	127	13041	0.97%	109	8440	1.29%	18	4601	0.39%
Jun-19	255	13280	1.92%	245	8179	3.00%	10	5101	0.20%
Jul-19	217	13774	1.58%	211	9812	2.15%	6	3962	0.15%
Aug-19	354	14080	2.51%	348	11448	3.04%	6	2632	0.23%
Sep-19	190	13051	1.46%	186	9776	1.90%	4	3275	0.12%

THE GRAPH BELOW ILLUSTRATES TRACK KEEPING PERFORMANCE OVER 15 MONTHS WITH A TREND LINE



UNUSUAL TRACKS

Some 'unusual tracks' taken by departing aircraft are recorded by our NTK system and these can occur for a number of reasons, such as weather avoidance. These can result in the aircraft leaving the NPR below the required altitude or aircraft that have vectored at the required altitude and then misdirected to avoid conflict with traffic from other airports. All unusual tracks are investigated with the airline concerned.

Comment: During this three month period, there were no unusual tracks identified.

Departures – Over Congested Areas

THE WIZAD NOISE PREFERENTIAL ROUTE

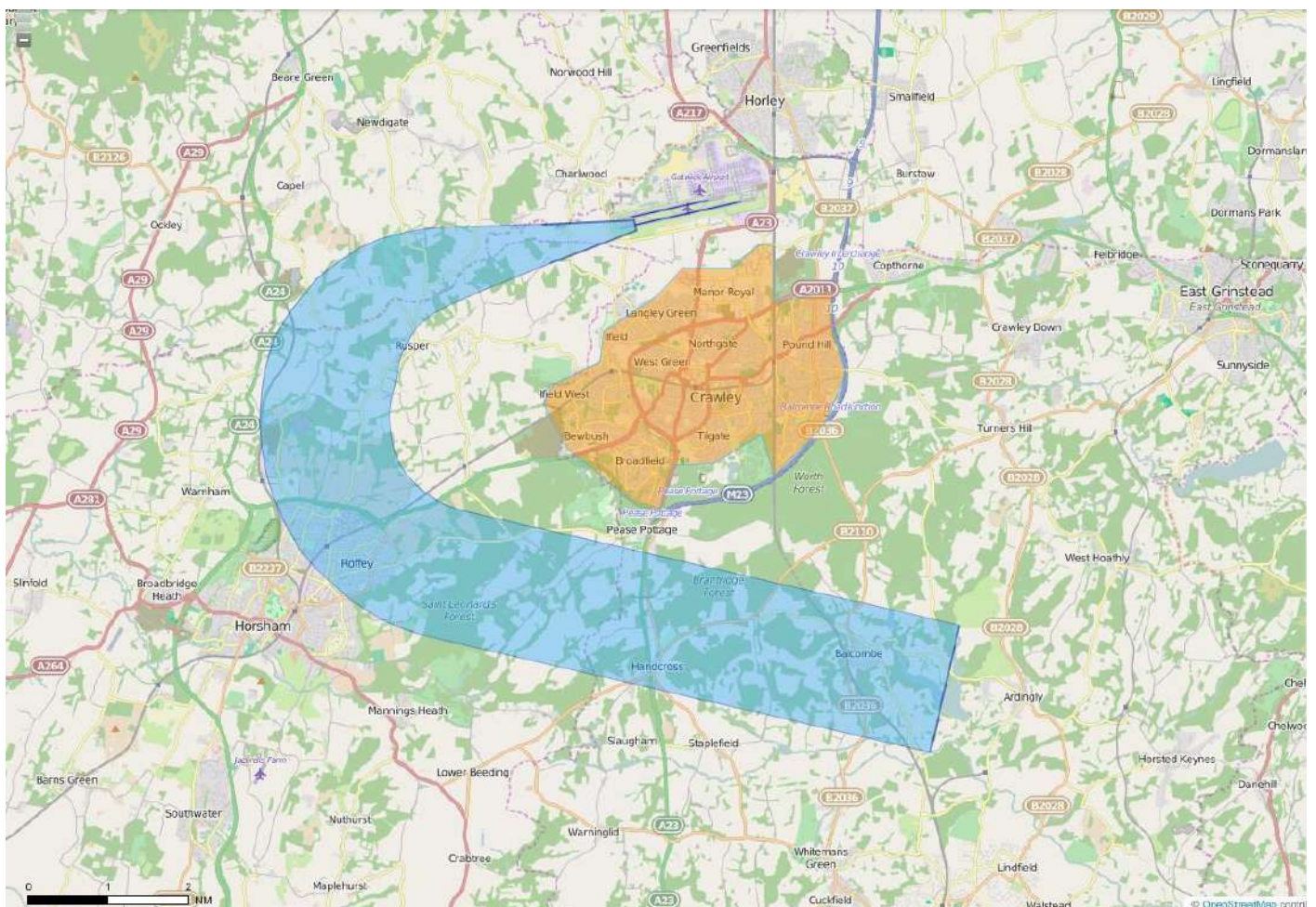
The WIZAD NPR (26WIZ or Route 9) was designated by the Government at the same time as all other Gatwick departure routes; however, it is not used on an equal basis with the other routes. It is a Tactical Offload Route and is not usually offered as part of a flight path. If the 26LAM Route (or Route 4) is very busy, WIZAD will be offered as a last minute alternative to ease the load.

As it is only a Tactical Offload Route, it is not well known and it is only offered to local pilots and usually used by more modern, high performance aircraft. It will also be used during periods of poor weather when an alternative to the usual routes may be required as aircraft should not fly through thunderstorms.

EGKK AD 2.21 (8)(c) *The ATC clearance via Mayfield specified in the second column of the table will not be available between 2300 hours and 0700 hours local time. Aircraft following the Noise Preferential Routing Procedure which relates to that clearance shall not fly over Crawley, Crawley Down or East Grinstead. This is to avoid aircraft noise from departing aircraft over areas of high population at night on the 26 WIZAD NPR.*

Comment: During this three month period, there were no departures during the restricted period on the 26 WIZAD NPR.

THE MAP BELOW ILLUSTRATES THE CRAWLEY TOWN BOUNDARY WITH NOISE PREFERENTIAL ROUTE 26 WIZAD



Overflight of Crawley and Horley

EGKK AD 2.21 (9) After taking off the aircraft shall avoid flying over the congested areas of Horley and Crawley.

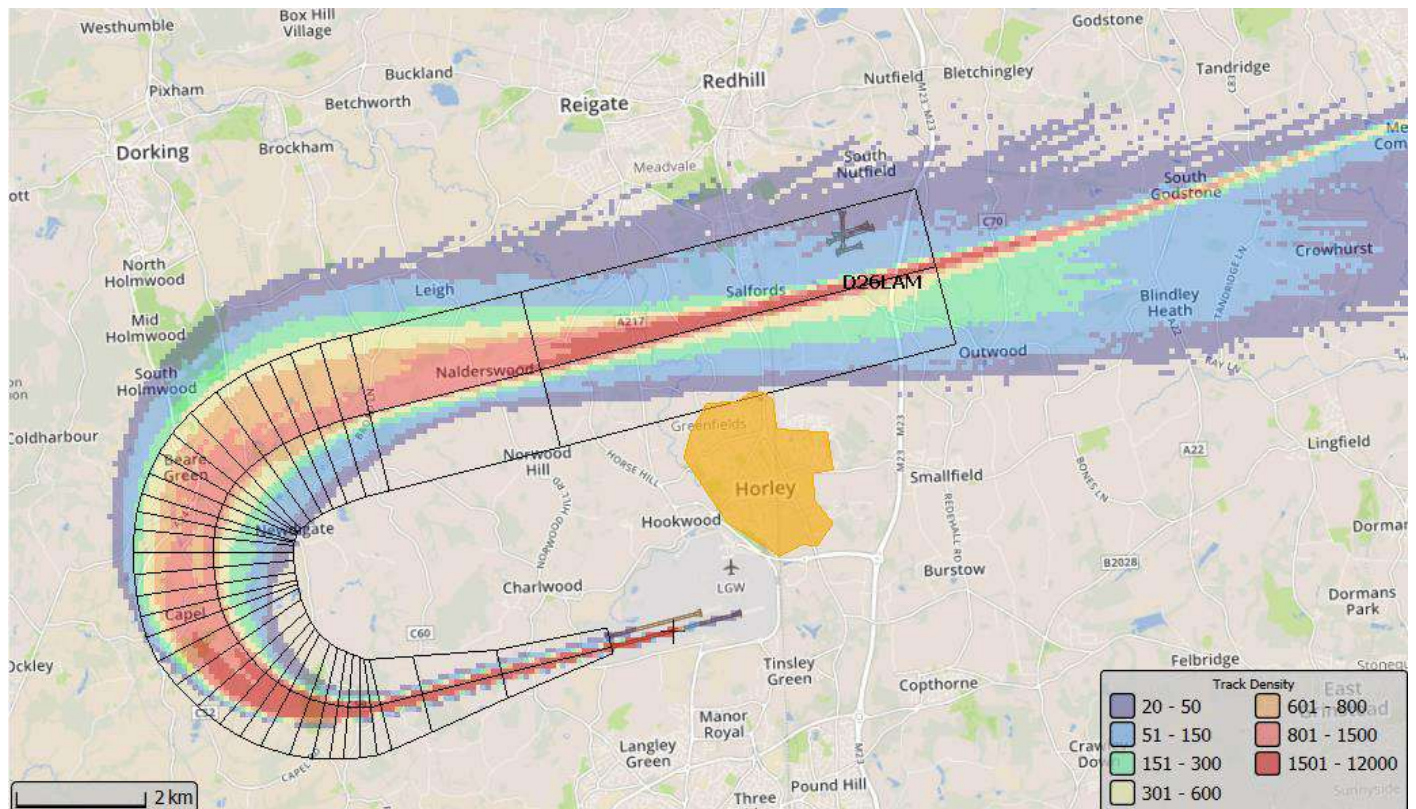
This is to avoid aircraft noise from departing aircraft over areas of high population.

Comment: During this period, there were no departing flights that passed over Crawley. It is important to note that Horley does experience overflight from Heathrow Airport traffic. The current construction of the SID is of the 'course to fix' type which determines the course to fly terminating at a waypoint whereas the 'radius to fix' specifies the curved path defined by radius, arc length and fix with the angle of bank being varied to achieve the specified path. Accelerating to a fixed

speed in times of strong south westerly winds (2000' wind >25kts) can exceed the aircraft's authorised limits. This leads to a variance between different aircraft types and operators and therefore, some aircraft fly further north or south than others. The wind and weather (e.g. thunderstorms) also has an effect on the headings of aircraft which may result in direct overflight of Horley.

It should be noted that the Casper NTK system experienced two radar outages between 11th and 12th July and 10th and 13th August inclusive which means data has had to be omitted from the figures for these dates

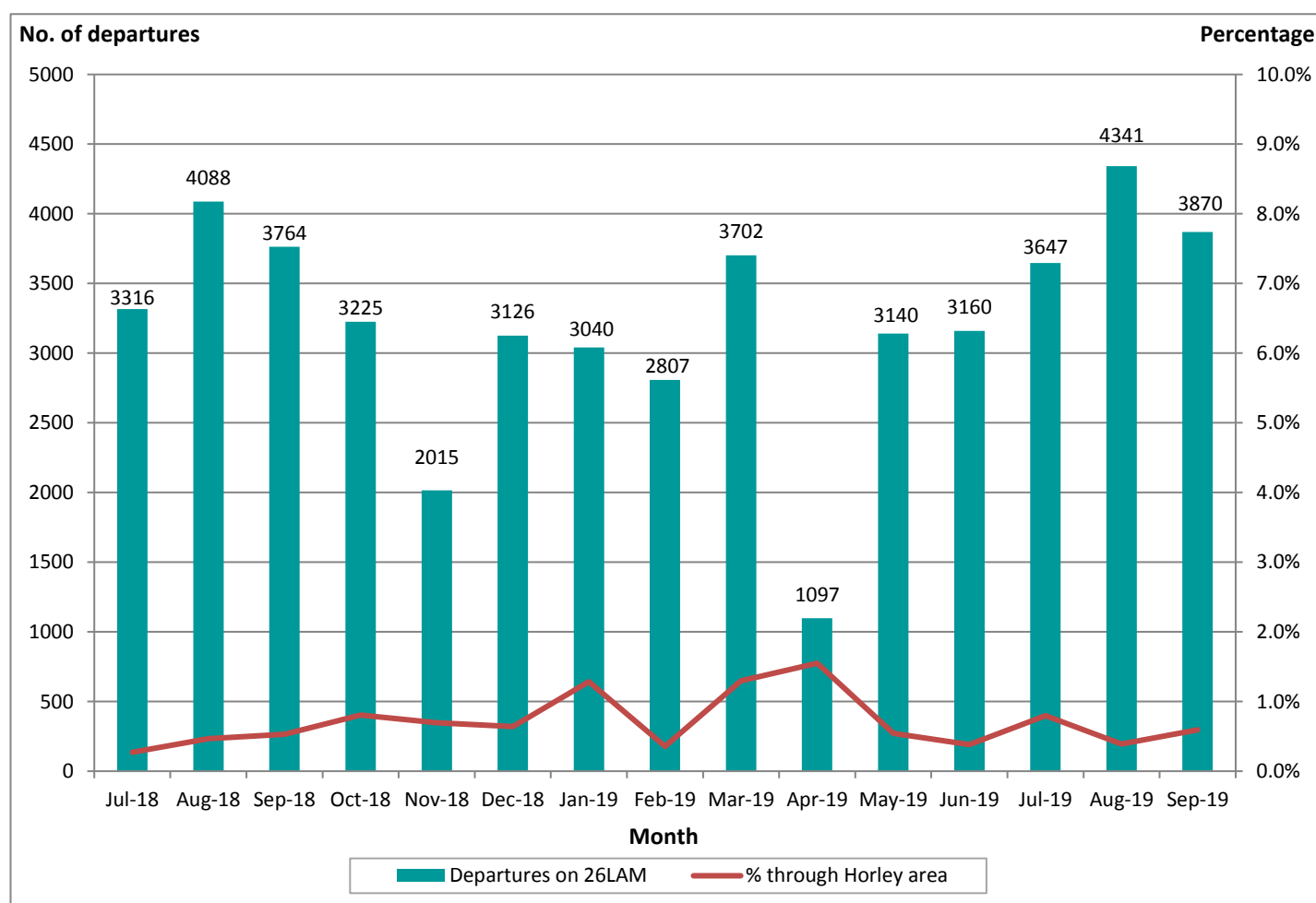
THE MAP BELOW ILLUSTRATES THE TRACK DENSITY OF DEPARTING AIRCRAFT ON THE 26 LAM DEPARTURE ROUTE DURING THE THREE MONTH PERIOD WITH HORLEY TOWN HIGHLIGHTED



THE TABLE BELOW ILLUSTRATES THE ANALYSIS OF HORLEY OVERFLIGHT

Month	Deps on 26LAM	Horley Area	% through Horley Area	Month	Deps on 26LAM	Horley Area	% through Horley Area	Month	Deps on 26LAM	Horley Area	% through Horley Area
Jan-17	2004	19	0.95%	Jan-18	3056	29	0.95%	Jan-19	3040	39	1.28%
Feb-17	2391	22	0.92%	Feb-18	2075	19	0.92%	Feb-19	2807	10	0.36%
Mar-17	3385	10	0.30%	Mar-18	2314	13	0.56%	Mar-19	3702	48	1.30%
Apr-17	3307	15	0.45%	Apr-18	2793	9	0.32%	Apr-19	1097	17	1.55%
May-17	2347	9	0.38%	May-18	2025	15	0.74%	May-19	3140	17	0.54%
Jun-17	4075	26	0.64%	Jun-18	2648	14	0.53%	Jun-19	3160	12	0.38%
Jul-17	4310	20	0.46%	Jul-18	3316	9	0.27%	Jul-19	3647	29	0.80%
Aug-17	4162	12	0.29%	Aug-18	4088	19	0.46%	Aug-19	4341	17	0.39%
Sep-17	4040	25	0.62%	Sep-18	3764	20	0.53%	Sep-19	3870	23	0.59%
Oct-17	4526	28	0.62%	Oct-18	3225	26	0.81%	Oct-19	-	-	-
Nov-17	3558	30	0.84%	Nov-18	2015	14	0.69%	Nov-19	-	-	-
Dec-17	3947	35	0.89%	Dec-18	3126	20	0.64%	Dec-19	-	-	-

THE GRAPH BELOW ILLUSTRATES THE ANALYSIS OF HORLEY OVERFLIGHT



Arrivals – Continuous Descent Operations (CDO)

A CDO (also known as a Continuous Decent Approach, CDA) is a noise abatement technique of flight during which a pilot descends at a rate with the intention of achieving a continuous descent to join the glide path at the correct height for the distance. This procedure thereby avoids the need for extended periods of level flight and results in keeping the aircraft higher for longer reducing the need for thrust. In addition to aiding noise reduction, this also reduces fuel burn thereby cutting emissions and producing an overall environmental benefit.

A CDO is a procedure designed to try and avoid prolonged periods of level flight below 7,000ft*. Studies have determined that elements of prolonged level flight are noisier than when following CDO. The aviation industry is working hard to improve compliance and an Arrivals Code of Practice (ACoP) has been produced by the Department for Transport (DfT) which aims to promote the use of CDO as a regular practice for all arriving aircraft:

‘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 7,000ft* QNH and ‘level flight’ is interpreted as any segment of flight having a height change of not more than 50ft over a track distance of 2nm or more, as recorded in the airport Noise and Track Keeping system.’

A CDO is not a precise art and relies on the accuracy of track miles provided by ATC to the flight crew coupled with pilot skill, weather conditions and operational circumstances. Additionally, different aircraft types perform differently requiring varying operating practices to be utilised in order to slow the aircraft down and meet speed restrictions. Therefore the procedures in the ACoP are advisory rather than compulsory, so there are no sanctions against pilots or airlines that fail to comply with the measures. Despite this, publication of the ACoP has resulted in significant improvements in CDO achievement at all times of day and night. The Airspace Office are actively working with the airlines to encourage the use of CDO as a best practice method by continually providing monthly reports.

Airlines and pilots are keen to adopt this procedure for economic as well as environmental reasons and are active in promoting CDO within their companies.

CDO data is measured over three time periods:

- The Core Night period (2330-0600)
- The Day and Shoulder periods (0600–2330)
- The 24-hour period

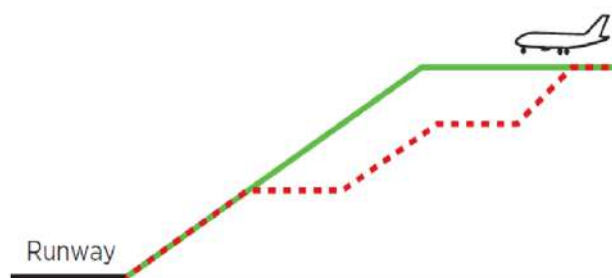
The following text appears in the UK AIP Noise Abatement Procedures for Gatwick Airport:

EGKK AD 2.21 (10) *Where the aircraft is approaching the aerodrome to land it shall, commensurate with its ATC clearance, minimise noise disturbance by the use of continuous decent and low power, low drag operating procedures (referred to in Detailed Procedures for descent clearance in EGKK AD 2.22 of the UK AIP). 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 in 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. This is to avoid prolonged periods of level flight and keep aircraft as high as possible for as long as possible.*

*As a result of the Independent Review of Arrivals, it was recommended (Imm-05) that the CDO monitoring altitude be increased from 6,000ft to 7,000ft as of 1st August 2016.

It should be noted that the Casper NTK system experienced two radar outages between 11th and 12th July and 10th and 13th August inclusive which means data has had to be omitted from the figures for these dates.

It should be noted that due to the termination of the Casper NTK system on 31st March 2019, the figures for Q1 2019 only cover 1st January – 30th March 2019 inc.

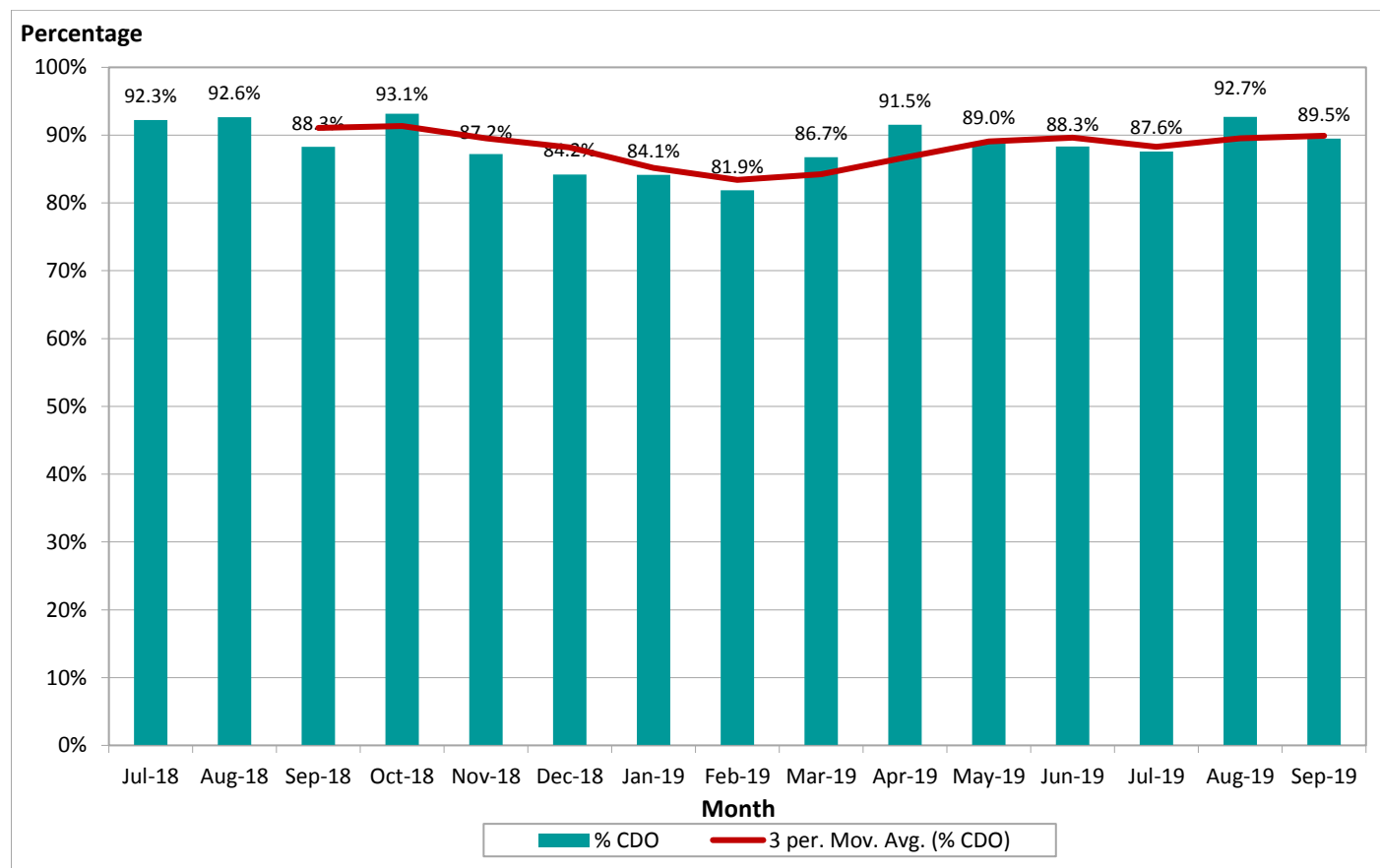


CORE NIGHT PERIOD (2330-0600)

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO CORE NIGHT TIME PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Jul-18	1755	136	92.25%	502	45	91.04%	1253	91	92.74%
Aug-18	1561	115	92.63%	173	8	95.38%	1388	107	92.29%
Sep-18	1569	184	88.27%	526	51	90.30%	1043	133	87.25%
Oct-18	1122	77	93.14%	416	25	93.99%	706	52	92.63%
Nov-18	329	42	87.23%	185	23	87.57%	144	19	86.81%
Dec-18	437	69	84.21%	117	15	87.18%	320	54	83.13%
Jan-19	315	50	84.13%	66	6	90.91%	249	44	82.33%
Feb-19	364	66	81.87%	106	18	83.02%	258	48	81.40%
Mar-19	445	59	86.74%	55	6	89.09%	390	53	86.41%
Apr-19	816	68	91.67%	664	53	92.02%	152	15	90.13%
May-19	1246	137	89.00%	479	47	90.19%	767	90	88.27%
Jun-19	1595	186	88.34%	574	71	87.63%	1021	115	88.74%
Jul-19	1891	235	87.57%	499	48	90.38%	1392	187	86.57%
Aug-19	1873	137	92.69%	497	22	95.57%	1376	115	91.64%
Sep-19	1669	175	89.51%	460	37	91.96%	1209	138	88.59%

THE GRAPH BELOW ILLUSTRATES THE CORE NIGHT TIME CDO COMPLIANCE WITH A TREND LINE

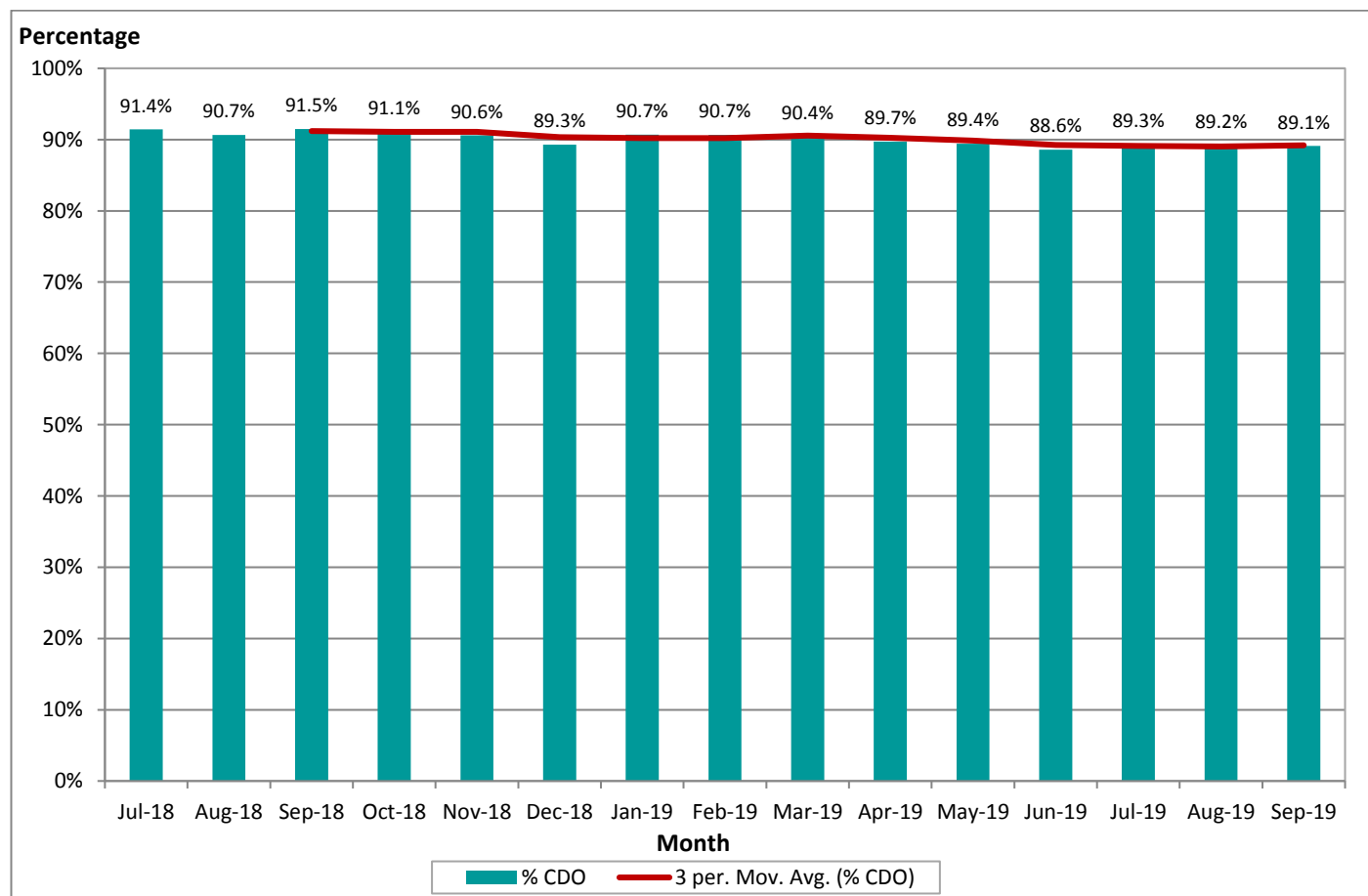


DAYTIME AND SHOULDER PERIOD CDO ACHIEVEMENT (0600-2330)

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO DAYTIME AND SHOULDER PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Jul-18	11296	967	91.44%	3551	286	91.95%	7745	681	91.21%
Aug-18	10714	1001	90.66%	1272	129	89.86%	9442	872	90.76%
Sep-18	11903	1012	91.50%	3464	324	90.65%	8439	688	91.85%
Oct-18	11434	1017	91.11%	4103	382	90.69%	7331	635	91.34%
Nov-18	9340	876	90.62%	4591	393	91.44%	4749	483	89.83%
Dec-18	9770	1045	89.30%	2304	216	90.63%	7466	829	88.90%
Jan-19	9568	891	90.69%	2081	162	92.22%	7487	729	90.26%
Feb-19	9596	897	90.65%	2688	216	91.96%	6908	681	90.14%
Mar-19	10494	1009	90.38%	1170	72	93.85%	9324	937	89.95%
Apr-19	11195	1149	89.74%	8377	849	89.87%	2818	300	89.35%
May-19	11787	1245	89.44%	4082	363	91.11%	7705	882	88.55%
Jun-19	11676	1331	88.60%	4332	455	89.50%	7344	876	88.07%
Jul-19	11893	1272	89.30%	3426	361	89.46%	8467	911	89.24%
Aug-19	12193	1316	89.21%	2289	208	90.91%	9904	1108	88.81%
Sep-19	11421	1244	89.11%	2859	250	91.26%	8562	994	88.39%

THE GRAPH BELOW ILLUSTRATES THE DAY & SHOULDER CDO COMPLIANCE WITH A TREND LINE

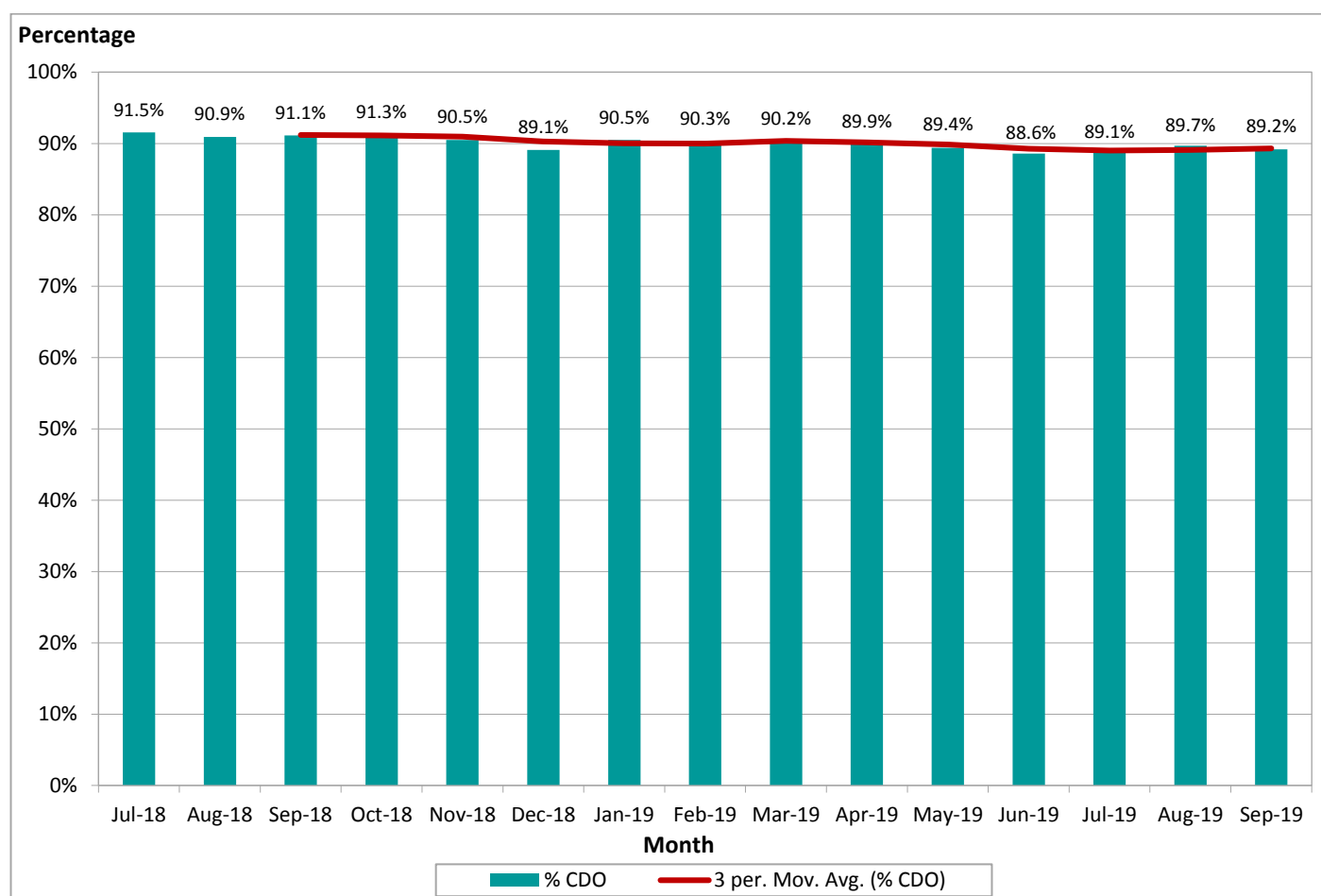


24 HOUR PERIOD CDO ACHIEVEMENT

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO 24 HOUR TIME PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Jul-18	13051	1103	91.55%	4053	331	91.83%	8998	772	91.42%
Aug-18	12275	1116	90.91%	1445	137	90.52%	10830	979	90.96%
Sep-18	13472	1196	91.12%	3990	375	90.60%	9482	821	91.34%
Oct-18	12556	1094	91.29%	4519	407	90.99%	8037	687	91.45%
Nov-18	9669	918	90.51%	4776	416	91.29%	4893	502	89.74%
Dec-18	10207	1114	89.09%	2421	231	90.46%	7786	883	88.66%
Jan-19	9883	941	90.48%	2147	168	92.18%	7736	773	90.01%
Feb-19	9960	963	90.33%	2794	234	91.62%	7166	729	89.83%
Mar-19	10939	1068	90.24%	1225	78	93.63%	9714	990	89.81%
Apr-19	12011	1217	89.87%	9041	903	90.01%	2970	315	89.39%
May-19	13033	1382	89.40%	4561	410	91.01%	8472	972	88.53%
Jun-19	13271	1517	88.57%	4906	526	89.28%	8365	991	88.15%
Jul-19	13784	1507	89.07%	3925	409	89.58%	9859	1098	88.86%
Aug-19	14066	1453	89.67%	2786	230	91.74%	11280	1223	89.16%
Sep-19	13090	1419	89.16%	3319	287	91.35%	9771	1132	88.41%

THE GRAPH BELOW ILLUSTRATES THE 24 HOUR PERIOD CDO COMPLIANCE WITH A TREND LINE



Arrivals – Over Congested Areas

OVERFLIGHT OF CONGESTED AREAS

AD 2-EGKK1-12 (11) *Before landing at the aerodrome the aircraft shall maintain as high an altitude as practicable and shall not fly over the congested areas of Crawley, East Grinstead, Horley and Horsham at an altitude of less than 3,000ft (Gatwick QNH) nor over the congested area of Lingfield at an altitude of less than 2,000ft (Gatwick QNH).*

N.B. 2,000ft – (202ft (airfield elevation) + 100ft (radar/ILS tolerance)) = 1,698ft on Airports Noise & Aircraft Tracking System

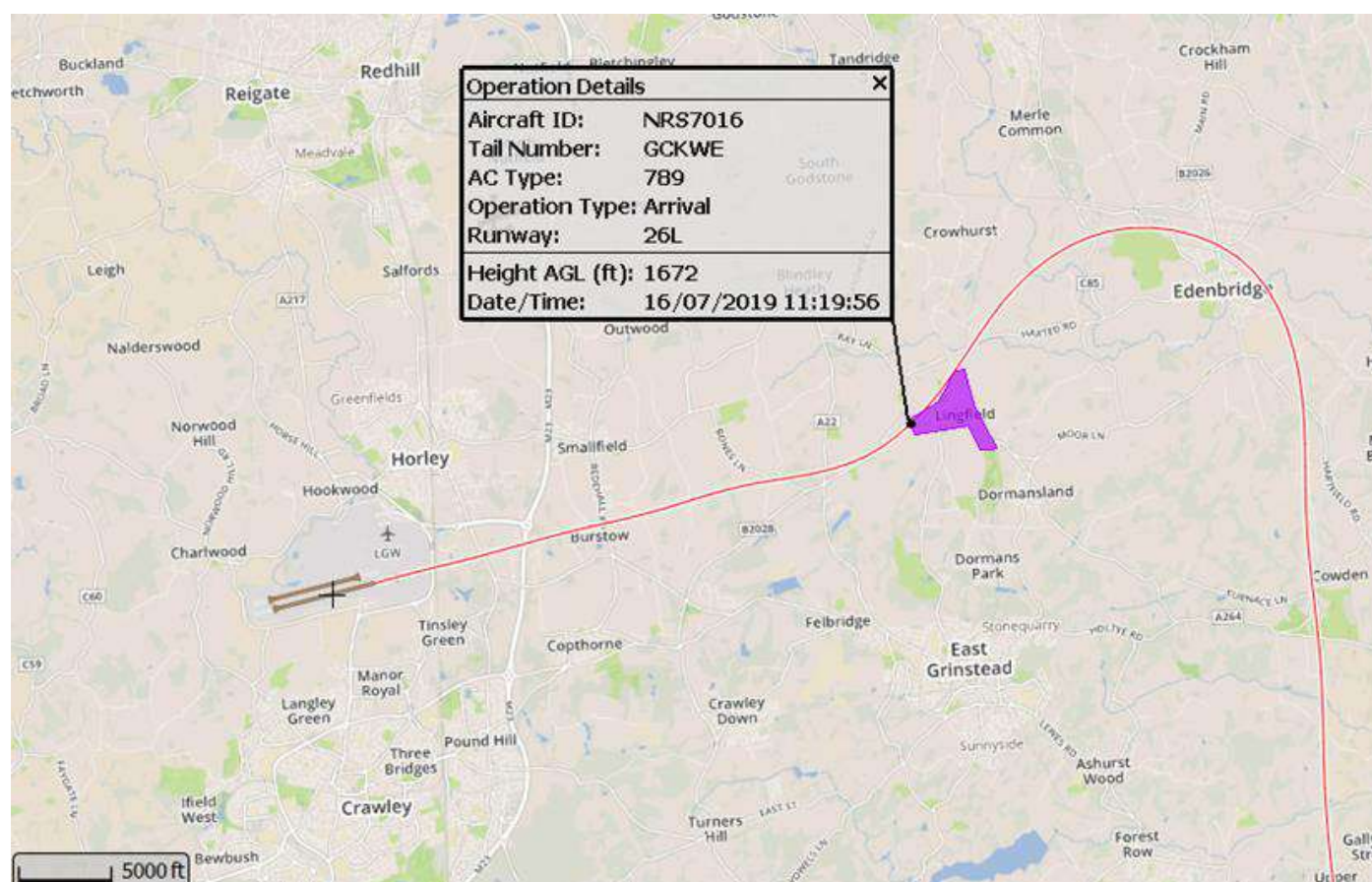
Comment: There were no arriving flights which passed over the towns of Crawley, Horley or East Grinstead other than a small number of go-arounds. The map overleaf illustrates these analysis zones.

A polygon located over the urban area at about 7 nautical miles (NM) from touchdown is normally used to analyse tracks over the Lingfield area.

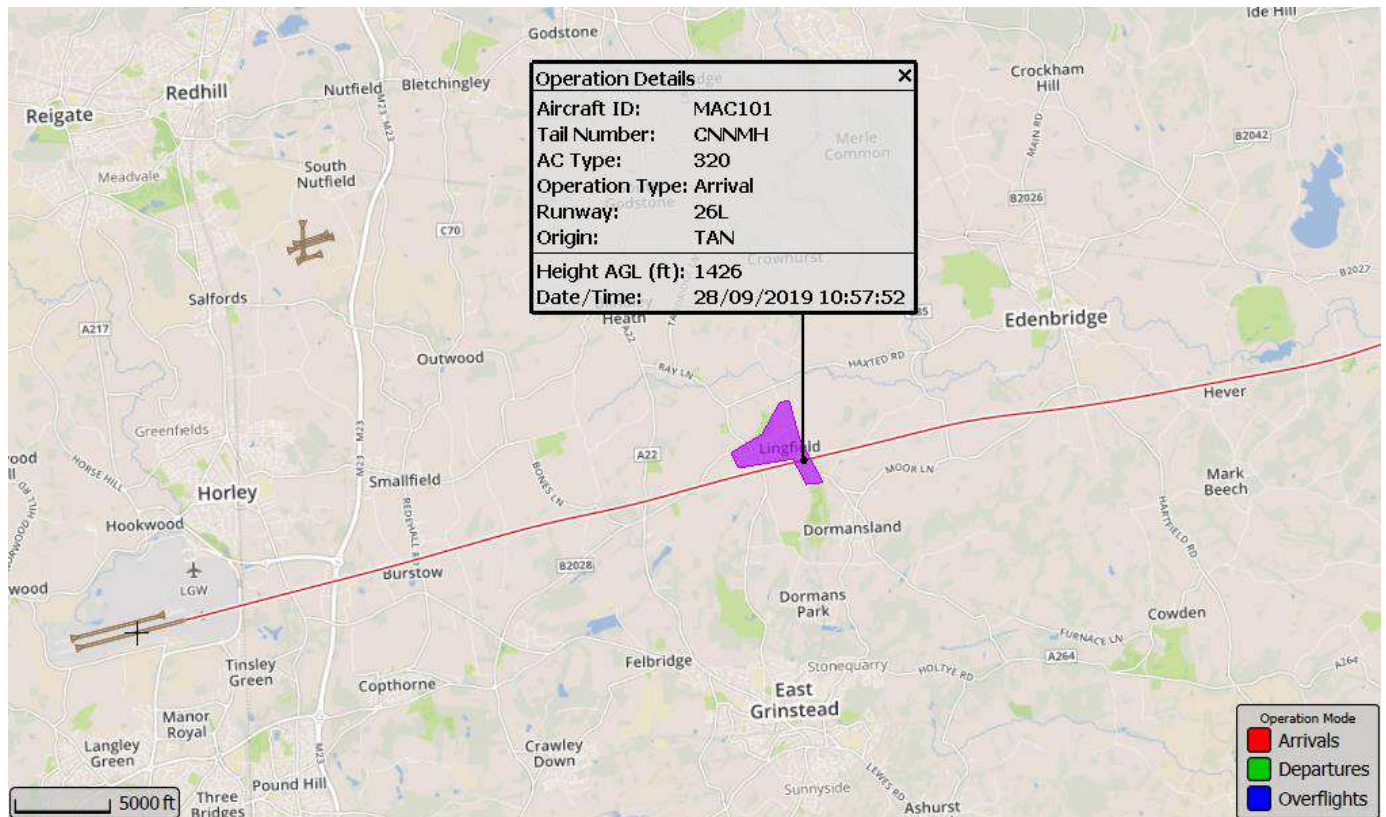
During the analysis period, there were a total of 64 arrivals that passed through this area. Aircraft tracks were analysed for July, August and September 2019 and there were two flights which passed over Lingfield below the altitude of 1,698ft (2,000ft Gatwick QNH).

These were caused by a Norwegian Boeing 789-900 Dreamliner on 16th July which passed over the town at 1,672ft. After investigation with the airline, this was a result of airspace congestion. The second infringement was caused by an Air Arabia Maroc Airbus A320 on 28th September which passed over the town at 1,426ft. ATC had instructed the pilot to conduct a visual approach which meant the flight descended lower than expected.

THE MAP BELOW SHOWS THE NORWEGIAN B787-900 ARRIVING BELOW 1,698FT OVER LINGFIELD



THE MAP BELOW SHOWS THE AIR ARABIA MAROC AIRBUS A320 ARRIVING BELOW 1,698FT OVER LINGFIELD



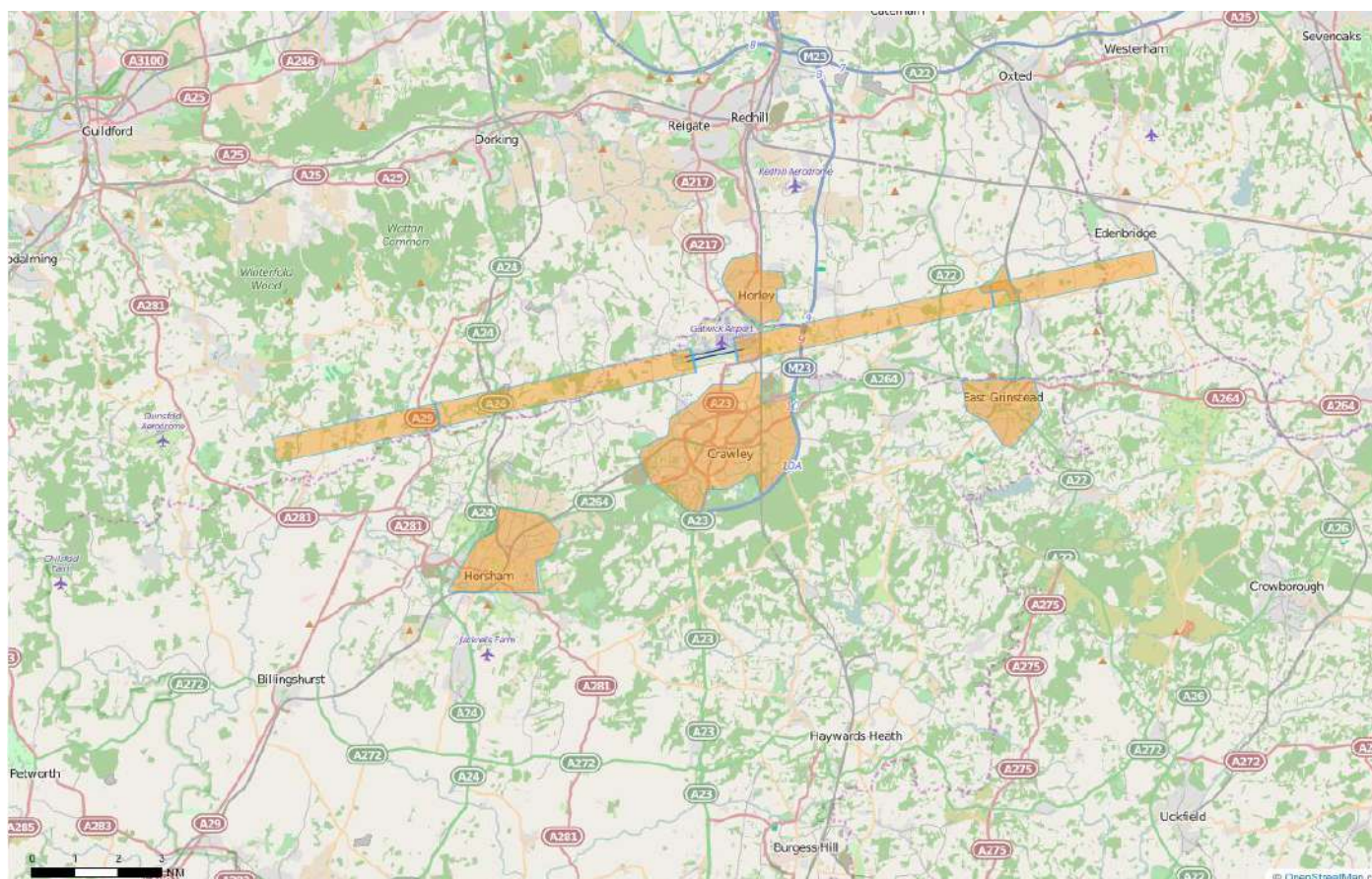
A) DAY TIME JOINING HEIGHT (0600-2359)

EGKK AD 2.21 (13(a)) *Where the aircraft is using the ILS in IMC or VMC it shall not descend below 2,000ft (Gatwick QNH) before intercepting the glidepath, nor thereafter fly below the glidepath. This is aimed at keeping aircraft as high as possible for as long as possible.*

The map below shows the congested urban areas, a series of gates running parallel to the extended runway centreline for around 6NM east and west of the airport, used to monitor low arrivals, joining the ILS below 2,000ft.

There were 40,940 arrivals recorded by the Airports Noise and Track Keeping system between 1st July and 30th September 2019. Of these, the number of arrivals that were operating below an altitude of 2,000ft (equivalent to a height in the NTK system of 1,798ft) through one or more of the analysis gates was 2 (>0.1%). This figure is a sum of both easterly and westerly arrivals joining the ILS.

THE FOLLOWING MAP ILLUSTRATES THE ANALYSIS ZONES USED FOR LATE AND LOW ARRIVALS FOR BOTH ENDS OF THE AIRFIELD AND THE CONGESTED URBAN AREAS



B) NIGHT TIME JOINING HEIGHT AND DISTANCE (2330-0559)

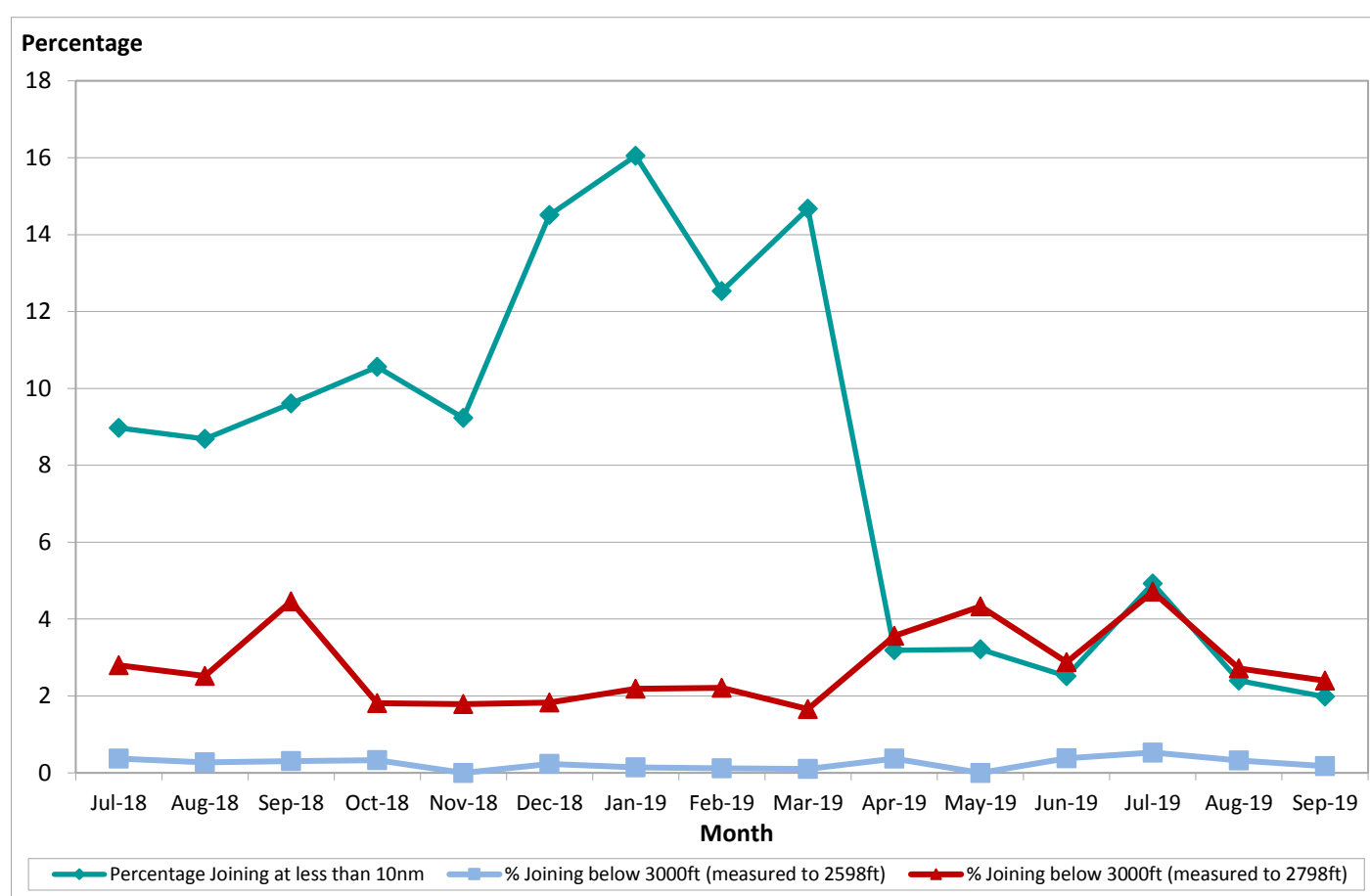
EGKK AD 2.21 (14) Aircraft which land at Gatwick Airport - London between the hours of 2330 (local) and 0600 (local), whether or not making use of the ILS localizer and irrespective of weight or type of approach, shall not join the centre-line:

- a) below 3000ft, or
- b) closer than 10 nm from touchdown.

This aims to keep aircraft higher for longer and avoid overflying areas en route to the ILS below 3,000ft.

During standby runway operations, usually at night during maintenance of the main runway, the threshold is in a different location than the main runway (a different radar map is used for the extended centreline) so the 10 nautical mile (NM) marker is in a slightly different location. As we are complying with 10NM on the standby runway, this may be flagged as a join inside 10NM on the main runway.

THE GRAPH BELOW ILLUSTRATES THE NIGHT TIME JOINING POINTS OVER THE 15 MONTH PERIOD



N.B. 3,000ft (Gatwick QNH) – 202ft (airfield elevation) = 2,798ft on Airports Noise & Track Keeping System

3,000ft (Gatwick QNH) – 202ft (airfield elevation) – 200ft ATC radar tolerance = 2,598ft on Airports Noise & Track Keeping System

Following the implementation of the new NTK system, all of the data analysis processes were re-created. These processes were checked and once confirmed, the resulting data outputs were compared to the previous Casper system. In almost all cases the data was comparable, however, this particular data set (aircraft joining the ILS at less than 10NM

in the night period) does not align with the Casper system over-reporting. It is not possible to explore how Casper calculated this value and as the new process has been independently checked, all analysis presented beyond the 1st April 2019 will use this new process.

Go-Around Statistics 2004 - 2019

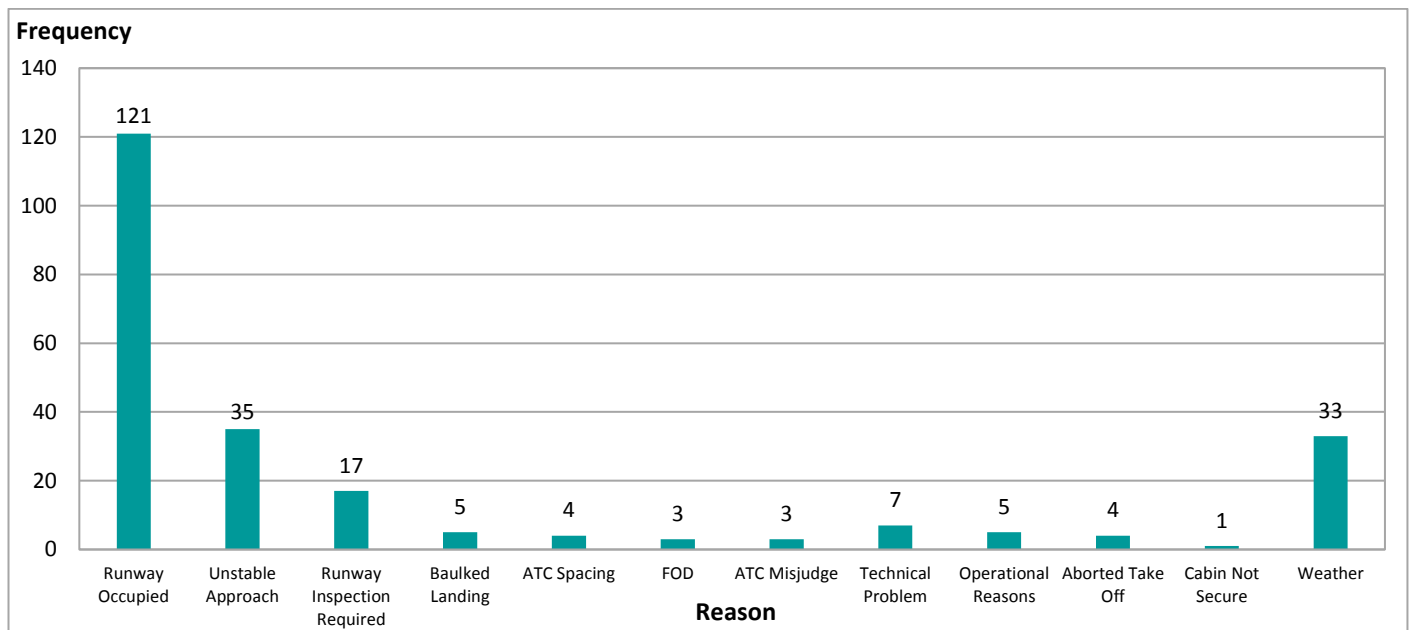
A go-around is a procedure adopted when an arriving aircraft on final approach aborts landing by applying take off power and climbing away from the airport. It is a set procedure to be followed by the flight crew in the event of an aircraft being unable to land. The procedure is published so that ATC and the pilots can anticipate where the aircraft will go following the decision to go-around.

The standard missed approach procedure applicable to Gatwick Airport requires aircraft that are aborting their approach to climb to 3,000ft straight ahead, then, on passing 2,000ft or 1DME (distance measuring equipment) (whichever is later), turn heading 180. This may or may not result in aircraft overflying the town of Crawley or outlying areas.

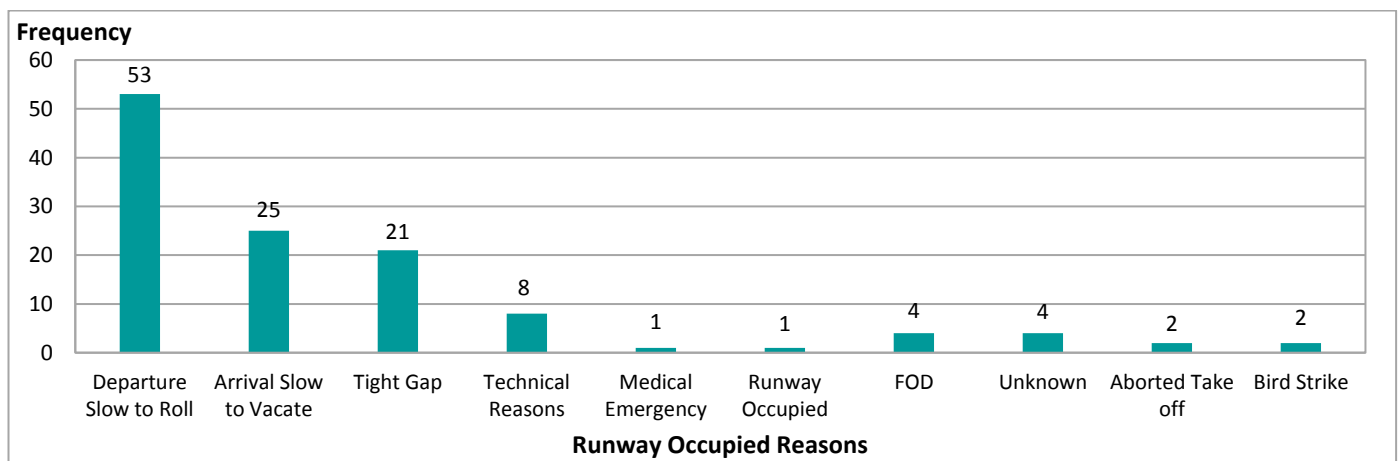
The number and reasons for go-arounds are routinely discussed at FLOPSC meetings and Pilot Forums. All parties are focussed on minimising the number of occasions when a go-around is required, but expect some to occur given the fact that Gatwick is a busy single runway airport.

It should be stated that there are well established standard procedures which both pilots and controllers are trained in and are familiar with. Gatwick Airport Limited, as the airport operator, actively encourages airlines operating at the airport to fly to the best possible environmental standards; however, safety must and always will be the number one priority.

ANS CURRENTLY RECORD GO-AROUNDS UNDER ONE OF THE FOLLOWING CAUSAL FACTORS (JULY - SEPT 2019)



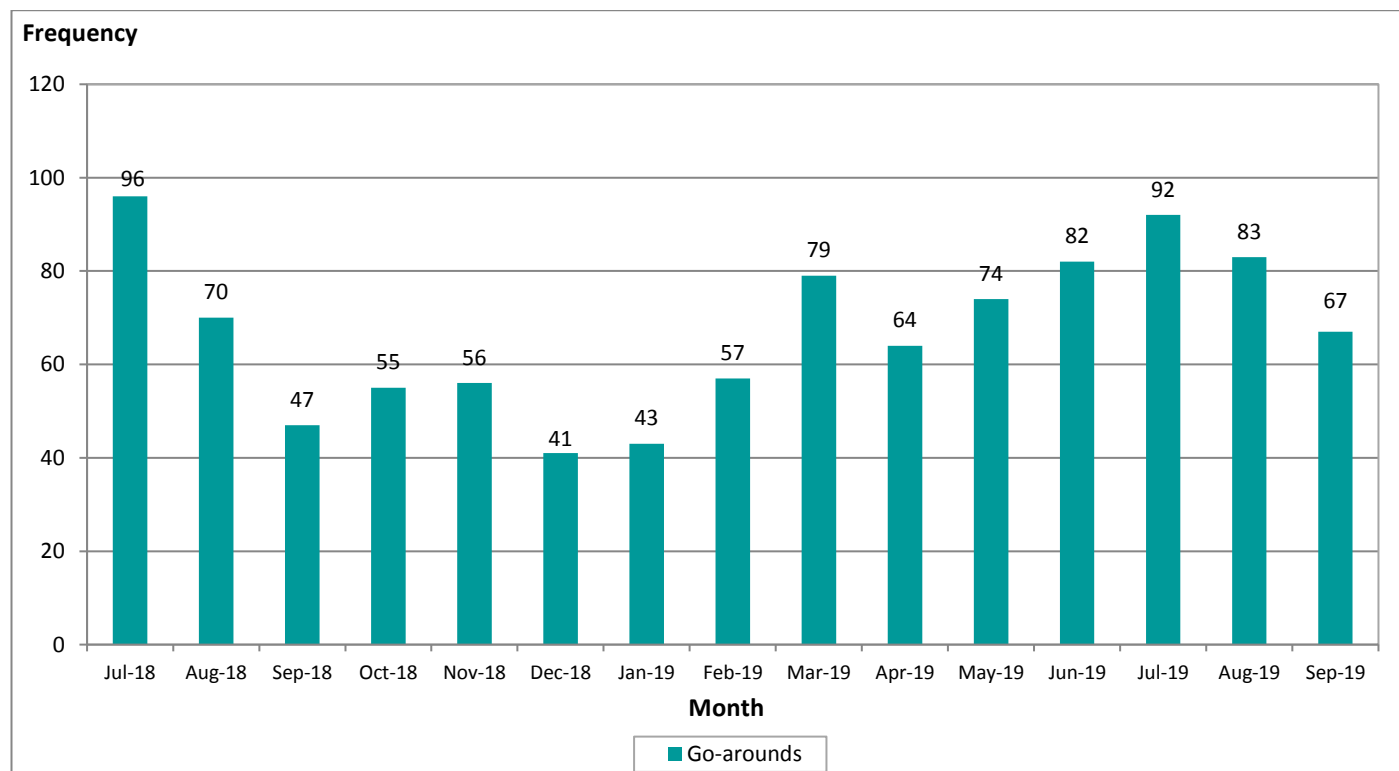
THE REASONS GIVEN BY ANS FOR GO-AROUNDS DUE TO RUNWAY OCCUPANCY DURING THE THREE MONTH PERIOD



THE TABLE BELOW ILLUSTRATES GO-AROUND STATISTICS 2004 – 2019

Year	Total	Total Arrivals	% of Arrivals
2004	344	124665	0.28
2005	450	129509	0.35
2006	405	130954	0.31
2007	434	133271	0.33
2008	359	131858	0.27
2009	455	125861	0.36
2010	364	120263	0.30
2011	386	125541	0.31
2012	520	123408	0.42
2013	473	125290	0.38
2014	512	129966	0.39
2015	520	133869	0.39
2016	642	139998	0.46
2017	618	142956	0.43
2018	699	141950	0.49
2019 (Jan-Sept)	641	110431	0.58

THE GRAPH BELOW ILLUSTRATES TOTAL NUMBER OF GO-AROUNDS PER MONTH



Night Flights

The Secretary of State, in exercise of his powers under Section 78 of the Civil Aviation Act 1982, has imposed restrictions at Gatwick Airport on aircraft operating at night. These restrictions are in place to limit and mitigate noise disturbance from aircraft operating at night and to prohibit aircraft of specified descriptions from operating, and also to limit the number of occasions on which other aircraft may take off or land.

The night flying restrictions are divided into summer and winter seasons which coincide with the start and end of British Summer Time. They consist of a movement limit and a quota count system. The quota count (QC) means that points are allocated to different aircraft types according to how noisy they are. The noisier the aircraft type, the higher the points allocated. This provides an incentive for airlines to use quieter aircraft types. Aircraft are certified by ICAO according to the noise they produce and are classified separately for both take-off and landing.

For the purposes of night flying operations, the night quota period is defined as the period between 2330-0600 (local time). In addition, there are two further shoulder periods of 2300–2330 and 0600–0700 (local time), where other restrictions apply to the scheduling and operation of aircraft of specified descriptions.

The current restrictions on night flying came into force in October 2017, to remain in place until 2022 for all the London Airports. At Gatwick, this regime maintained the status quo for movements and QC until the Winter 2018/19 season. This season sees a reduction in the QC limit and a new QC value of 0.125 applied to some aircraft which were classified as QC0. As of October 2017, all aircraft movements have counted towards the night quota limit, including those previously exempt. This will further incentivise the use of quieter aircraft as an Airport can continue the use of its movement allowance but the average noise produced by an aircraft cannot increase.

Overleaf is a mid-season report for summer 2019 which commenced at 01:00 on the 31st March 2019.

RESTRICTIONS

Winter	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Movements						
Limits	3250	3250	3250	3250	3250	3250
Quota Points	2000	2000	1785	1785	1785	1785

Summer	2017	2018	2019	2020	2021	2022
Movements						
Limits	11200	11200	11200	11200	11200	11200
Quota Points	6200	6200	5150	5150	5150	5150

The total number of movements available for the summer season is 11525.

DISPENSATIONS

In accordance with the DfT guidelines, there may be times when an aircraft can be disregarded from the night flight restrictions. As a general rule these are unforeseen circumstances outside the control of either the Airport or Airline resulting in the unscheduled use of a night slot. Examples of such instances include humanitarian relief flights, emergencies, VIP visits, delays as a result of disruption leading to passenger hardship, ATC disruption or airspace closure caused by a volcanic ash cloud. The rules related to dispensations are strictly adhered to and all instances are reported to the DfT within 7 days.

There have been 674 dispensations applied (as of 28th September, see DfT report). The reasons were as follows:

- 484 dispensations were applied due to adverse weather conditions.
- 108 were applied due to ATC strike and computer problems.
- 71 were due to prolonged regulations caused by short notice staff sickness at NATS Terminal Control.
- 7 were applied due to low visibility conditions.
- 2 were applied due to passenger hardship.
- 1 was applied due to a government approved dispensation.
- 1 was applied due to a medical emergency.

QC4, QC8 and QC16 MOVEMENTS

There have been no QC8 or QC16 movements during either the night quota or shoulder periods. These QC values are not to be scheduled to take off or land between 2300 and 0700. QC4 types may not be scheduled to take off or land during this period. However this quarter, one QC4 movement was scheduled to operate during the night quota period, as part of Operation Matterhorn to help repatriate passengers following the collapse of Thomas Cook Airlines. This was a Wamos Boeing 747-400 Series.

London Gatwick

AIRPORT MOVEMENTS and QUOTA SUMMARY to WEEK 26 (31 MARCH 2019 to 28 SEPTEMBER 2019 inc.)

Season Quota Points Limit 5,150 Season Movement Limit 11,200
Total Quota Points Allowed 5,150 Total Movements Allowed 11,200

Wk No.	Week Ending Date	QC0 No.	QC0.125 No.	QC0.125 Value	QC0.25 No.	QC0.25 Value	QC0.5 No.	QC0.5 Value	QC1 No.	QC1 Value	QC2 No.	QC2 Value	QC4 No.	QC4 Value	Total Quota Value	Mvmts Against Limit	Not Cnt'd Delays	Not Cnt'd Govt	Not Cnt'd Emrgy	Total Arv/s No.	Total Arv/s %	Total Deps No.	Total Deps %	Total Rmwy Mvmts
1	06/04/2019	0	20	2.500	101	25.250	30	15.000	5	5.000	1	2.000	0	0.000	49.750	157	0	0	0	138	87.9	19	12.1	157
2	13/04/2019	0	21	2.625	156	39.000	39	19.500	10	10.000	1	2.000	0	0.000	73.125	227	0	0	0	202	89.0	25	11.0	227
3	20/04/2019	0	23	2.875	159	39.750	45	22.500	16	16.000	1	2.000	0	0.000	83.125	244	0	0	0	210	86.1	34	13.9	244
4	27/04/2019	0	27	3.375	137	34.250	41	20.500	13	13.000	0	0.000	0	0.000	71.125	218	0	0	0	188	86.2	30	13.8	218
5	04/05/2019	0	28	3.500	142	35.500	88	34.000	10	10.000	1	2.000	0	0.000	85.000	249	7	0	0	216	84.4	40	15.6	256
6	11/05/2019	3	38	4.750	141	35.250	88	43.000	19	19.000	1	2.000	0	0.000	104.000	288	28	1	0	279	88.0	38	12.0	317
7	18/05/2019	0	28	3.500	167	41.750	98	49.000	20	20.000	1	2.000	0	0.000	118.250	314	0	0	0	283	90.1	31	9.9	314
8	25/05/2019	0	21	2.625	162	40.500	108	54.000	30	30.000	0	0.000	0	0.000	127.125	321	0	0	0	281	87.5	40	12.5	321
9	01/06/2019	0	37	4.625	180	45.000	103	51.500	29	29.000	2	4.000	0	0.000	134.125	351	7	0	0	318	88.8	40	11.2	358
10	08/06/2019	0	33	4.125	209	52.250	107	53.500	32	32.000	2	4.000	0	0.000	145.875	383	14	0	0	349	87.9	48	12.1	397
11	15/06/2019	0	30	3.750	224	56.000	114	57.000	23	23.000	3	6.000	0	0.000	145.750	394	30	0	0	370	87.3	54	12.7	424
12	22/06/2019	0	35	4.375	219	54.750	119	59.500	23	23.000	3	6.000	0	0.000	147.625	399	35	0	0	378	87.1	56	12.9	434
13	29/06/2019	0	33	4.125	220	55.000	116	58.000	31	31.000	3	6.000	0	0.000	154.125	403	35	0	0	382	87.2	56	12.8	438
14	06/07/2019	0	48	6.000	225	56.250	112	56.000	33	33.000	4	8.000	0	0.000	159.250	422	51	0	0	413	87.3	60	12.7	473
15	13/07/2019	0	43	5.375	212	53.000	114	57.000	35	35.000	2	4.000	0	0.000	154.375	406	69	0	0	407	85.7	68	14.3	475
16	20/07/2019	0	49	6.125	258	64.500	108	54.000	39	39.000	3	6.000	0	0.000	169.625	457	33	0	0	425	86.7	65	13.3	490
17	27/07/2019	0	37	4.625	228	57.000	120	60.000	39	39.000	3	6.000	0	0.000	166.625	427	105	0	0	440	82.7	92	17.3	532
18	03/08/2019	0	56	7.000	250	62.500	112	56.000	45	45.000	3	6.000	0	0.000	176.500	466	60	0	1	459	87.1	68	12.9	527
19	10/08/2019	0	52	6.500	240	60.000	112	56.000	32	32.000	3	6.000	0	0.000	180.500	439	79	0	0	449	86.7	69	13.3	518
20	17/08/2019	0	43	5.375	256	64.000	118	59.000	41	41.000	3	6.000	0	0.000	175.375	461	47	0	0	452	89.0	56	11.0	508
21	24/08/2019	0	58	7.250	228	57.000	107	53.500	31	31.000	6	12.000	0	0.000	180.750	430	31	0	0	402	87.2	59	12.8	461
22	31/08/2019	0	58	7.250	232	58.000	113	56.500	32	32.000	5	10.000	0	0.000	183.750	440	2	0	0	387	87.6	55	12.4	442
23	07/09/2019	0	45	5.625	250	62.500	116	58.000	28	28.000	1	2.000	0	0.000	156.125	440	22	0	0	406	87.9	56	12.1	462
24	14/09/2019	0	43	5.375	252	63.000	105	52.500	40	40.000	3	6.000	0	0.000	166.875	443	0	0	0	395	89.2	48	10.8	443
25	21/09/2019	0	38	4.750	227	56.750	114	57.000	32	32.000	3	6.000	0	0.000	156.500	414	0	0	0	360	87.0	54	13.0	414
26	28/09/2019	0	44	5.500	262	65.500	89	44.500	32	32.000	1	2.000	1	4.000	153.500	429	17	0	0	396	88.8	50	11.2	446
TOTALS		3	988	123.500	5337	1334.250	2514	1257.000	720	720.000	59	118.000	1	4.000	3556.750	9622	672	1	1	8985	87.3	1311	12.7	10296

Quota Points Available 1,593.25 Movements Available 1,578
Quota % Points Used 69.1 Movements % Used 85.9

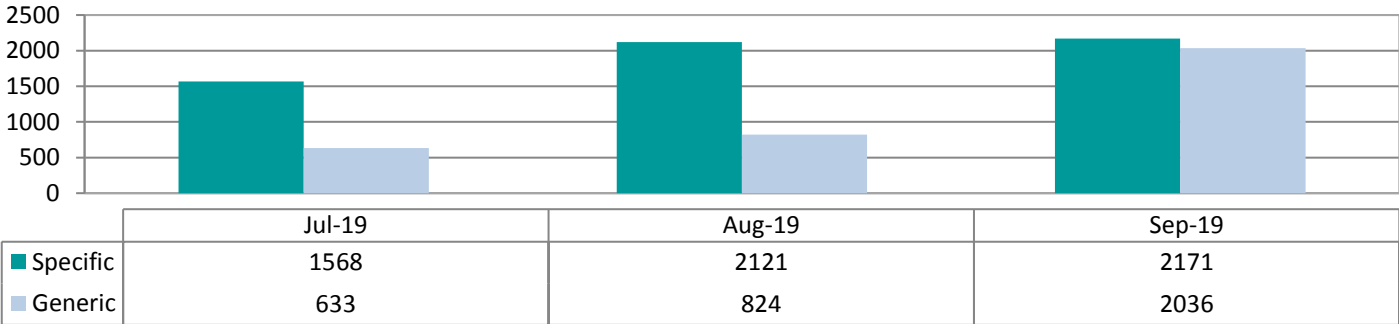
Note 1 Not Cont'd Delays Delays likely to lead to serious congestion and delays resulting from widespread disruption of Air Traffic.
Note 2 Not Cont'd Gov't Exemptions granted by Gov't (VIP Passengers, Emergency Relief).
Note 3 Not Cont'd Emrgy Emergency Take-offs and Landing

Noise Complaints

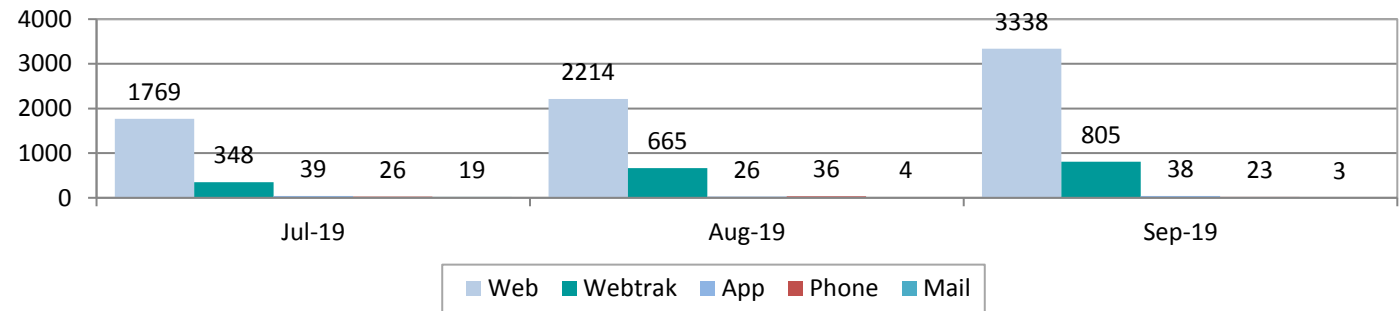
It is important that we understand the issues of noise disturbance from individuals and communities who live around the Airport. By studying the complaints we receive and by communicating with the affected towns and villages surrounding the Airport, we believe that this gives us a greater understanding of the issues related to noise.

This means that we can work together to improve the noise climate around the Airport. The complaints we have received are either about specific aircraft events that cause disturbance or generic complaints about airport operations in general. The following charts provide an analysis of the complaints submission channels.

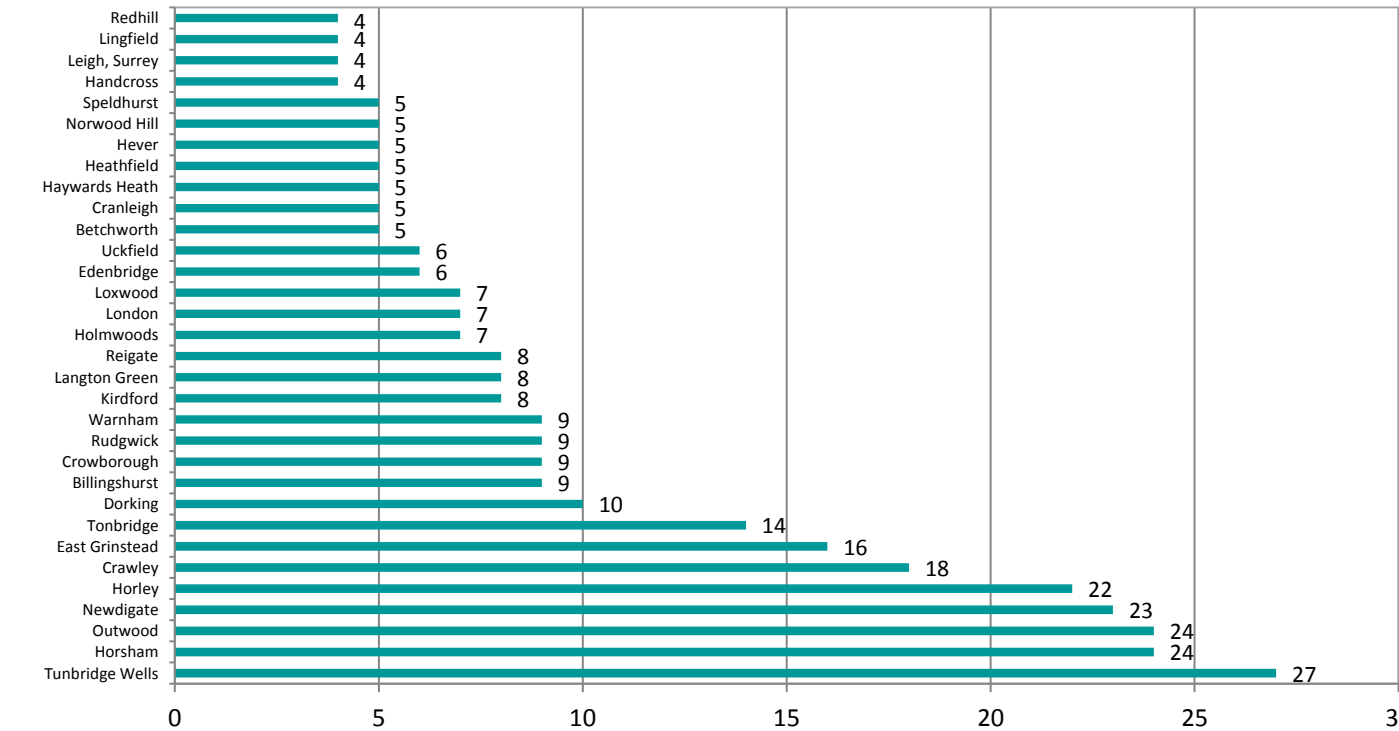
COMPLAINTS RECORDED BY MONTH



METHOD OF COMPLAINT



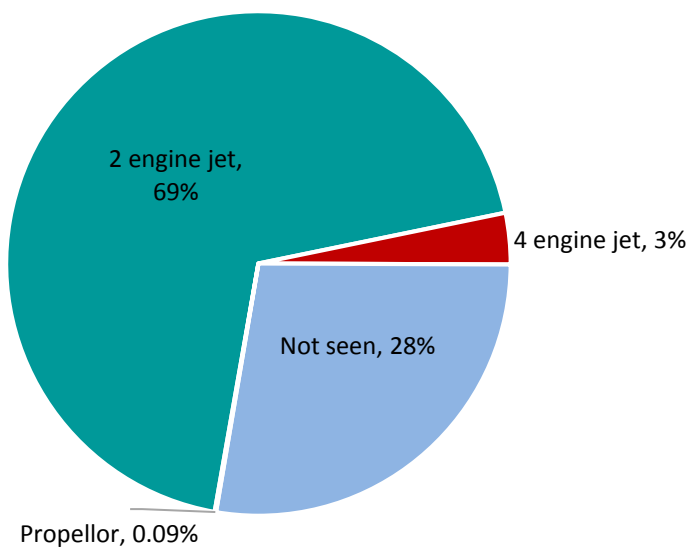
NUMBER OF INDIVIDUAL COMPLAINANTS BY TOWN/VILLAGE



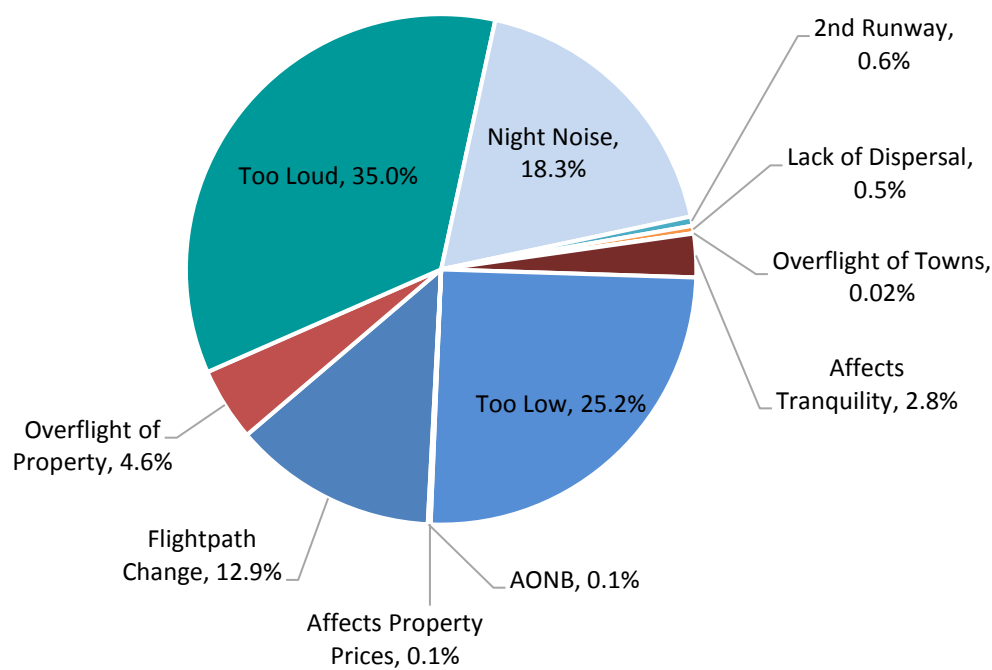
Noise is subjective and can affect people in different ways. Some people can tolerate a certain noise level whilst it can cause disturbance to others.

Below shows the breakdown of the types of aircraft that are being complained about as well as the main reasons for concern.

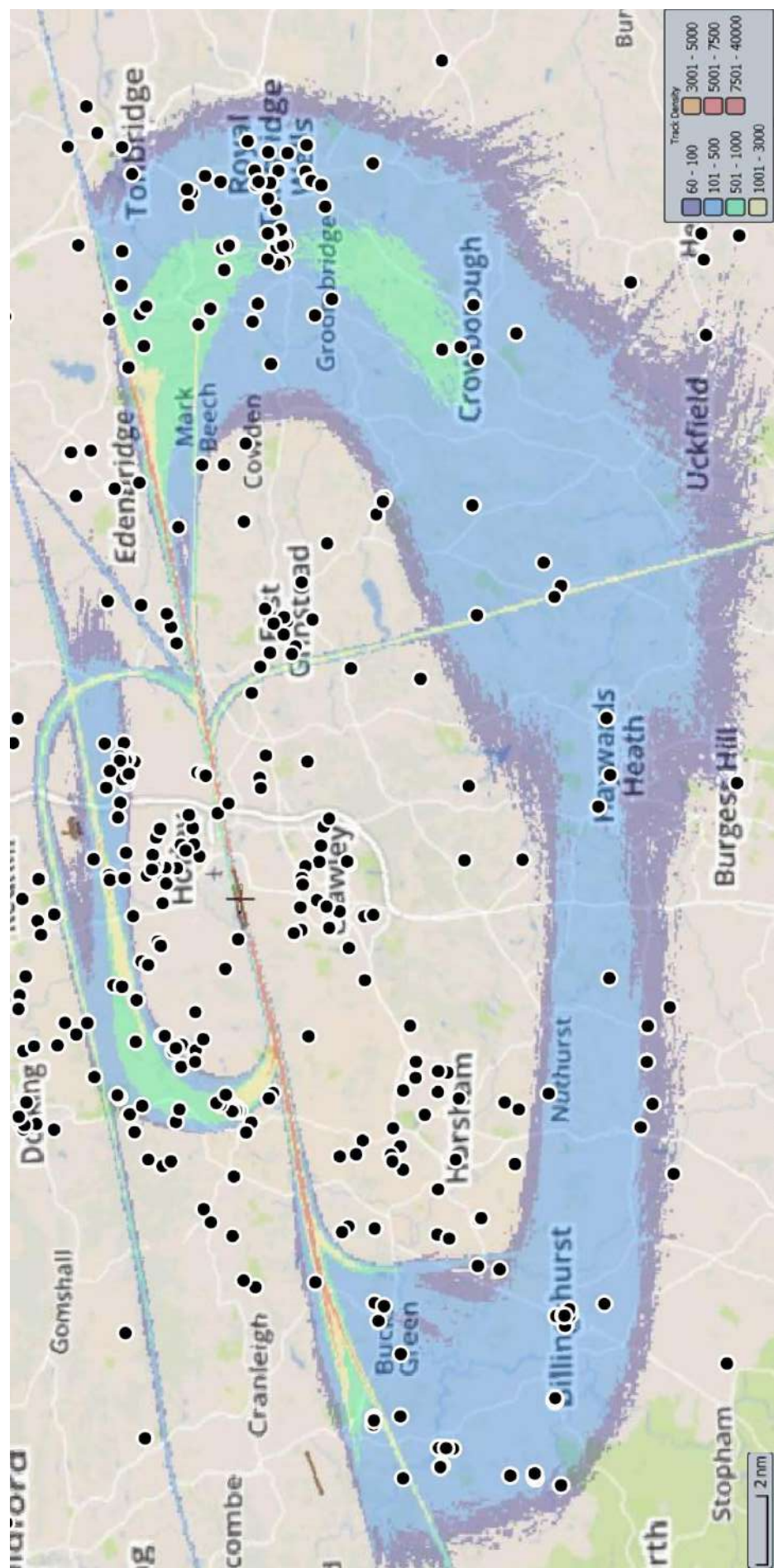
CATEGORIES OF AIRCRAFT TYPES FROM SPECIFIC COMPLAINTS



PERCENTAGE OF COMPLAINT CONCERNS



THE MAP BELOW ILLUSTRATES THE LOCATION OF NOISE COMPLAINTS RECEIVED BETWEEN JULY AND SEPTEMBER 2019



Ground Noise Complaints

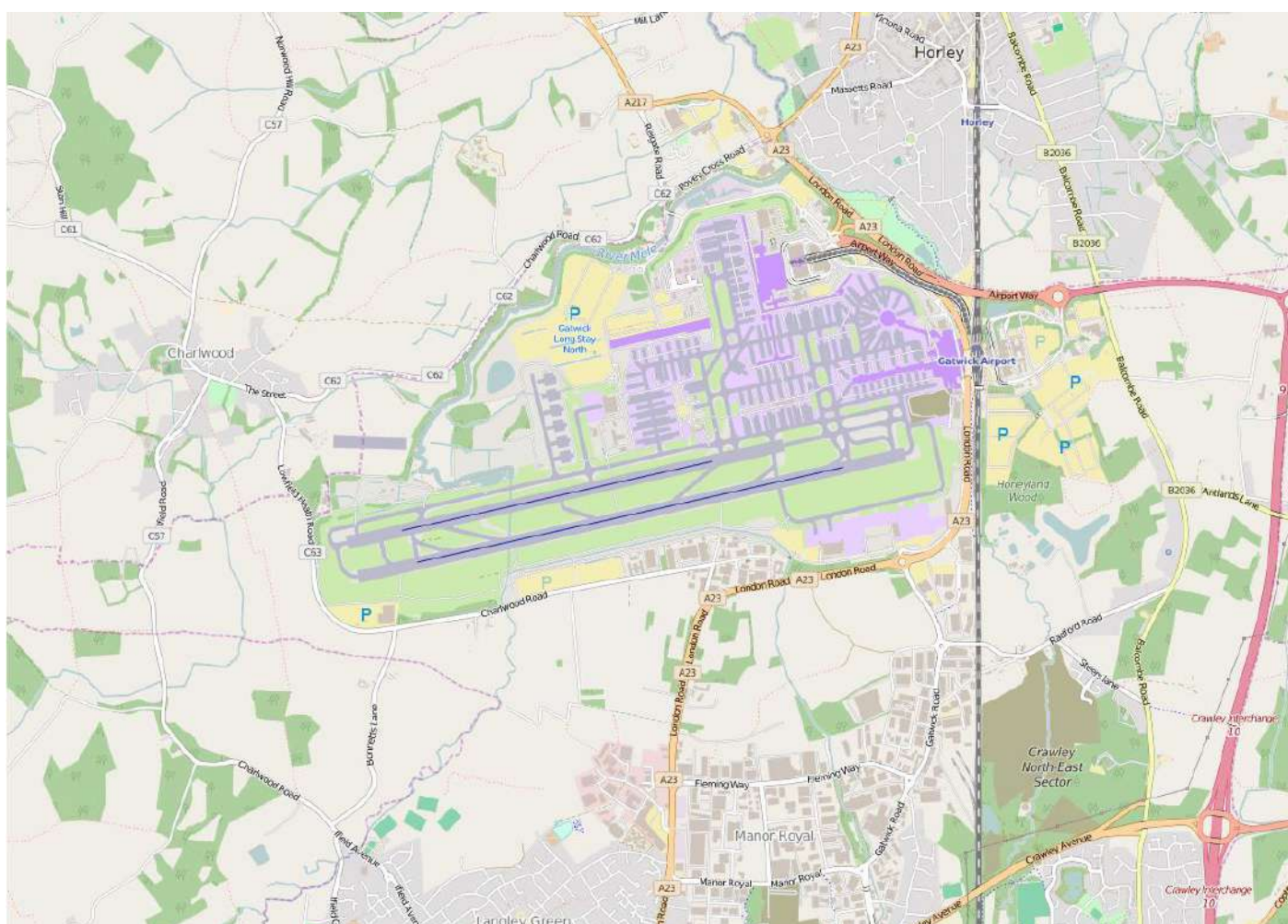
We occasionally receive complaints about disturbance from noise from within the boundary of the airfield. These can be caused by the normal operation of aircraft moving about the airfield, taking off and landing. Additional sources of noise disturbance can be the use of Auxiliary Power Units (APU) by aircraft on stand or the testing of engines following maintenance or repair (engine runs).

Strict regulations exist to minimise this disturbance, which includes a ban on engine running during the night. Details of any ground noise complaints are outlined below.

Comment:

There were no recorded ground noise complaints during this three month period.

THE MAP BELOW ILLUSTRATES THE GATWICK AIRPORT AIRFIELD



For more information visit us at: <http://www.gatwickairport.com/noise>

Glossary

ACoP – Arrivals Code of Practice

AIP – Aeronautical Information Publication

Airspace Office – previously known as the Flight Performance Team (FPT).

AMSL – Above Mean Sea Level

ANS – Air Navigation Solutions

APU – Auxiliary Power Unit - A small auxiliary engine on an aircraft used to provide electrical power when the main engines are shut down.

ATC – Air Traffic Control

CAA – Civil Aviation Authority

CDO – Continuous Descent Operations - A noise abatement procedure for arrivals used to avoid periods of level flight, reducing noise and emissions.

dBA – A-weighted decibels that takes closest account of human hearing. It is used to measure aircraft noise.

DfT – Department for Transport

DME – Distance measuring equipment

EGKK or **LGW** – London Gatwick Airport

FLOPSC – Flight Operations Performance and Safety Committee

Go-Around – A go-around is an aborted landing of an aircraft which is on approach to the runway.

ICAO – International Civil Aviation Organisation

ILS – Instrument Landing System

IMC – Instrument Meteorological Conditions

KPI – Key Performance Indicators

Lmax – Maximum noise level

NATS – National Air Traffic Services

nm – Nautical Miles

NPR – Noise Preferential Route

NTK – Noise and Track Keeping monitoring system. Casper was replaced with ANOMS on 1st April 2019.

P-RNAV – Precision Route Navigation

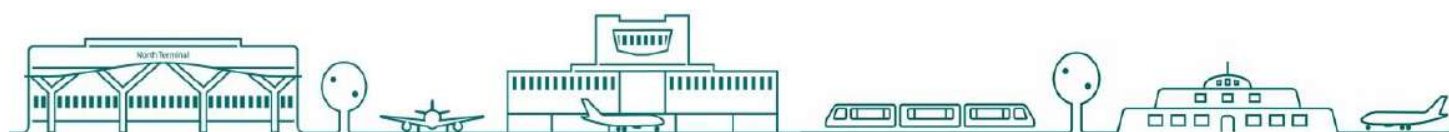
QC – Quota Count

QNH – The barometric pressure at sea level (QFE is the barometric pressure at the Airport).

SID – Standard Instrument Departure - A route out of UK airspace assigned to departing aircraft with an NPR in the first section.

Vectoring – Air Traffic Control procedure turning a departure off an NPR onto a more direct heading.

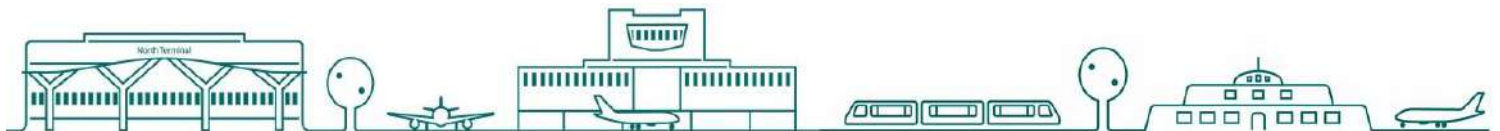
VMC – Visual Meteorological Conditions



YOUR LONDON AIRPORT
Gatwick

Gatwick Airport Airspace Office Quarterly Report

This report covers the period
(1st October – 31st December 2019)



YOUR LONDON AIRPORT
Gatwick

Contents

- Introduction 2
- Runway Direction 4
- The Aeronautical Information Publication 5
- Departures - Noise Infringements 6
- Departures - Initial Climb Performance..... 6
- Departures - Track Keeping 8
- Departures – Over Congested Areas 12
- Arrivals – Continuous Descent Operations (CDO) 14
- Arrivals – Over Congested Areas 19
- Go-Around Statistics 21
- Night Flights 24
- Noise Complaints 26
- Ground Noise Complaints 29
- Glossary 30

Introduction

ABOUT THIS REPORT

This report is produced by the Gatwick Airspace Office (formerly known as the Flight Performance Team). This team is responsible for recording, investigating and responding to aircraft noise enquiries as well as monitoring airline compliance to noise mitigation measures as detailed in the UK Aeronautical Information Publication (AIP). This department also actively engages with the airlines to improve their adherence to the above noise mitigation measures and in addition manages the night-time restrictions on flying at Gatwick.

This report contains detailed data on aircraft activity at Gatwick including the adherence to the noise mitigation measures detailed in the UK AIP, a report on night flying during the period, and an analysis of noise complaints received during the period.

KEY MONITORING INDICATORS – 1ST OCTOBER – 30TH DECEMBER 2019

Parameter		12 month performance averages ¹			
		2019 ⁷	2018 ⁶	2011	2006
Track keeping performance (% on track)	▲	98.42%	98.08%	97.47%	98.17% ³
24hr CDO (% achievement) ⁴	▼	89.58%	90.74%	90.49%	80.79%
Day/Shoulder CDO (% achievement)	▼	89.70%	90.80%	90.19%	79.9%
Core night CDO (% achievement)	▼	88.27%	90.03%	93.96%	89.6%
1,000ft Infringements (No.)	-	0	0	3	11
1,000ft Infringements (No. below 900ft)	-	0	0	1	6
Departure Noise Infringements (Day)	▲	1	0	0	10
Departure Noise Infringements (Night/Shoulder)	-	0	0	4	2
Individual complainants	▼	698	836	343	587
Total noise complaints received ⁵	▲	25,593	24,447	2,673	4,791
Enquiry response performance target is 95% within 8 days (October to December 2019)	▼	85.07%	99.98%	KPI 95%	
West/East Runway Split (%)	-	68/31	62/38	67/33	68/32

¹ The colour indicates the most recent 12 month performance compared to the 2011 END Baseline, with green showing improvement and red a decline in performance, the directional arrow indicating performance compared to the previous 12 month performance.

² Track keeping statistics measurement changed on the 26th May 2016 due to the Route 4 amendment, all SID's are now included in the total figure.

³ This figure did not include deviations from prop types or those due to weather.

⁴ As a result of the Independent Review of Arrivals, it was recommended (Imm-05) that the CDO monitoring altitude be increased from 6,000ft to 7,000ft as of 1st August 2016.

⁵ Complaints are recorded in line with our published complaints handling policy. The revised policy, published in November 2014, advised that only one complaint per day is recorded per individual. On the 29th September 2016, there was a further revision to our complaints handling policy which now allows individuals to make multiple complaints per day and these will each be recorded. It is important to note that since January 2018, complaints which have been deleted from the NTK system are no longer counted in the complaint statistics when they had been previously. Complaints are only deleted if they contain abusive, obscene or threatening language.

⁶ It should be noted that there were two separate NTK radar outages to the Casper flight tracking system which occurred between the 11th and 12th July 2018 and between 10th and 13th August 2018 inclusive. As a result of these outages, data has been omitted from the statistics for these dates and so these figures may not be exact for the period. Complaint data is unaffected.

⁷ It should be noted that due to the termination of the Casper NTK system on 31st March 2019, the figures for Q1 2019 only cover 1st January – 30th March 2019 inc.

Executive Summary

Performance Headlines

AIRPORT OPERATIONS

Between 1st October and 31st December 2019, there were a total of 63,888 fixed wing aircraft movements at Gatwick, a decrease of about 1.5% compared with the same period last year. The direction of operation is determined by wind direction and this was split 69% on the westerly runway and 31% on the easterly runway for the period. The 18 year average for the split in runway usage is approximately 68% westerly and 32% easterly.

STANDBY RUNWAY (26R/08L) USAGE

Although Gatwick has the main runway and the 'reserve' or standby runway, they cannot be operated simultaneously.

The standby runway is normally only utilised during the night when maintenance on the main runway is planned. During these three months, there were a total of 652 movements from the standby runway.

TRACK KEEPING

Track keeping performance has increased slightly compared to the previous year's performance, details of which will follow later in this report. As part of our continuing commitment to increase on-track performance, the Airspace Office continues to engage with the airlines directly and through the Flight Operations Performance and Safety Committee (FLOPSC) on a range of initiatives to monitor compliance.

WOULD YOU LIKE TO KNOW MORE ABOUT AIRCRAFT NOISE OR TRACK A FLIGHT?

To track aircraft, see noise readings or make a complaint about aircraft noise at Gatwick you can visit our website: <http://www.gatwickairport.com/noise>

The website provides detailed maps on aircraft traffic around the airport as well as useful information on noise and statistics on aircraft movements. It also details the work we undertake with others in the aviation industry to try and alleviate the impact of our operations on both the local and wider community.

CONTINUOUS DESCENT OPERATIONS (CDO) PERFORMANCE

While the Noise and Track Keeping (NTK) system utilises the most up-to-date format of radar data currently available, the algorithm that measures CDO performance has remained

unchanged since the definition was initially defined several years ago. As part of a development project to improve the accuracy of CDO measurement, the Airspace Office has worked closely with NATS to upgrade the current algorithm. The core algorithm remains unaltered, although some additional rules have been added with the result that some marginal profiles, previously classified as CDO compliant, will now be re-classified as non-CDO flights. These changes came into effect from May 2015 and the resulting variance in recorded levels of performance is in the order of 1%, therefore we expect to see a minor drop off in recorded performance from this date. Historical observations have consistently shown a reduction in performance during the winter months due to instances of inclement weather.

It is important to note that as recommended by the Independent Review of Arrivals, the altitude at which CDO is measured has changed as of 1st August 2016, more details later in the report.

COMMUNITY NOISE MONITORING

In addition to fixed monitors located close to the ends of the runway, there are currently mobile noise monitors deployed at sites in Lingfield, Rusper, Cowden, Charlwood, South Holmwood, Withyham, Hever Castle, Rusthall, Alfold, Slinfold, Faygate, Newdigate, Ruckmans, Sidlow, Ifold, Kingsfold, Chiddingstone and Outwood.

For several years, we have run a programme of noise monitoring to get a better understanding of the levels of aircraft noise in the communities surrounding Gatwick Airport. The noise monitors provide a method of monitoring and recording noise from both aircraft, and background sources. This allows us to evaluate trends and make comparisons between the noise environments at different locations.

COMPLAINTS

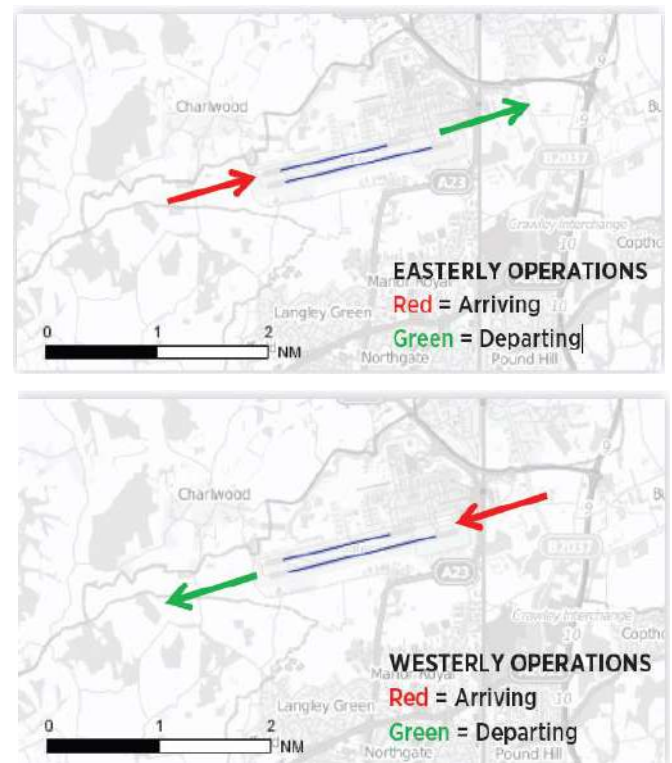
The number of recorded complaints has increased compared to the previous twelve months, however the number of complainants has decreased. Although the airport has been just as busy as it has in recent years, there has also been a large amount of publicity surrounding the community issues related to the Route 4 amendment and the airport's Draft Master Plan Consultation, which may be contributing factors for the number of complaints in this quarter.

The postcode areas with the greatest number of enquiries during the three month period were Horley, East Grinstead and Reigate. The number of individual complainants between October and December was **199**. Complaints about aircraft operations are processed in accordance with our published Complaints Handling Policy. Details of this policy are available on our website.

Runway Direction

The images represent the direction of runway operation at Gatwick. Aircraft operating in a westerly direction take off towards the west and land from the east. Aircraft operating in an easterly direction take off towards the east and land from the west. Although the long term average is approximately 68:32 in favour of westerly operations, it is not unusual to experience long periods of prolonged operation in either one direction or another.

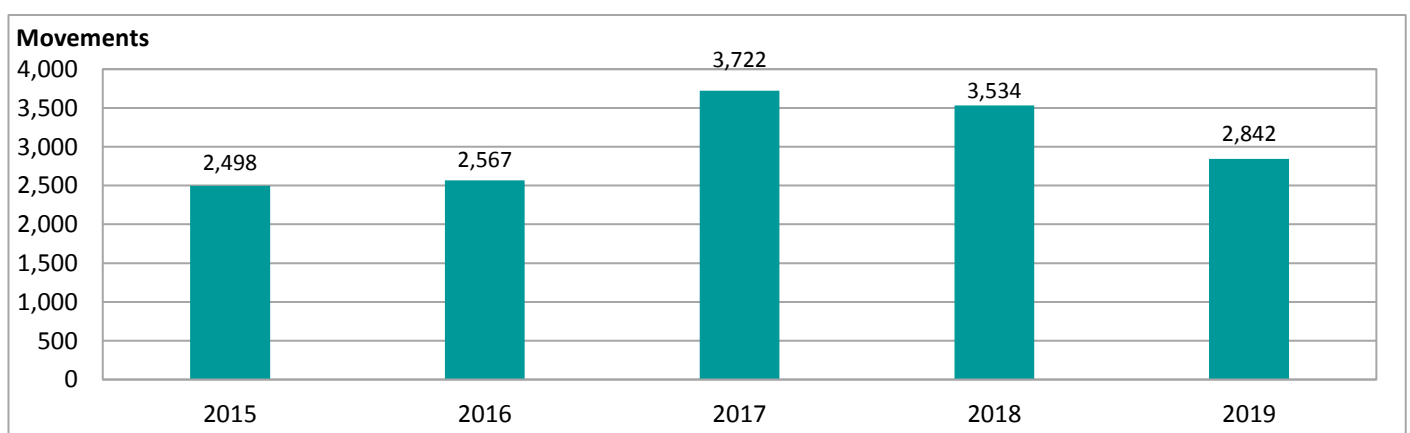
The Airport has one main runway. When the main runway is out of operation there is a standby runway adjacent to the main runway that can be used. This runway is shorter than the main runway and is not equipped with an Instrument Landing System and under current regulations, due to its proximity to the main runway, it cannot be used at the same time. The standby runway is normally only used during periods of essential maintenance on the main runway and this is normally carried out during night time when the Airport is not as busy.



STANDBY RUNWAY MOVEMENT TABLE

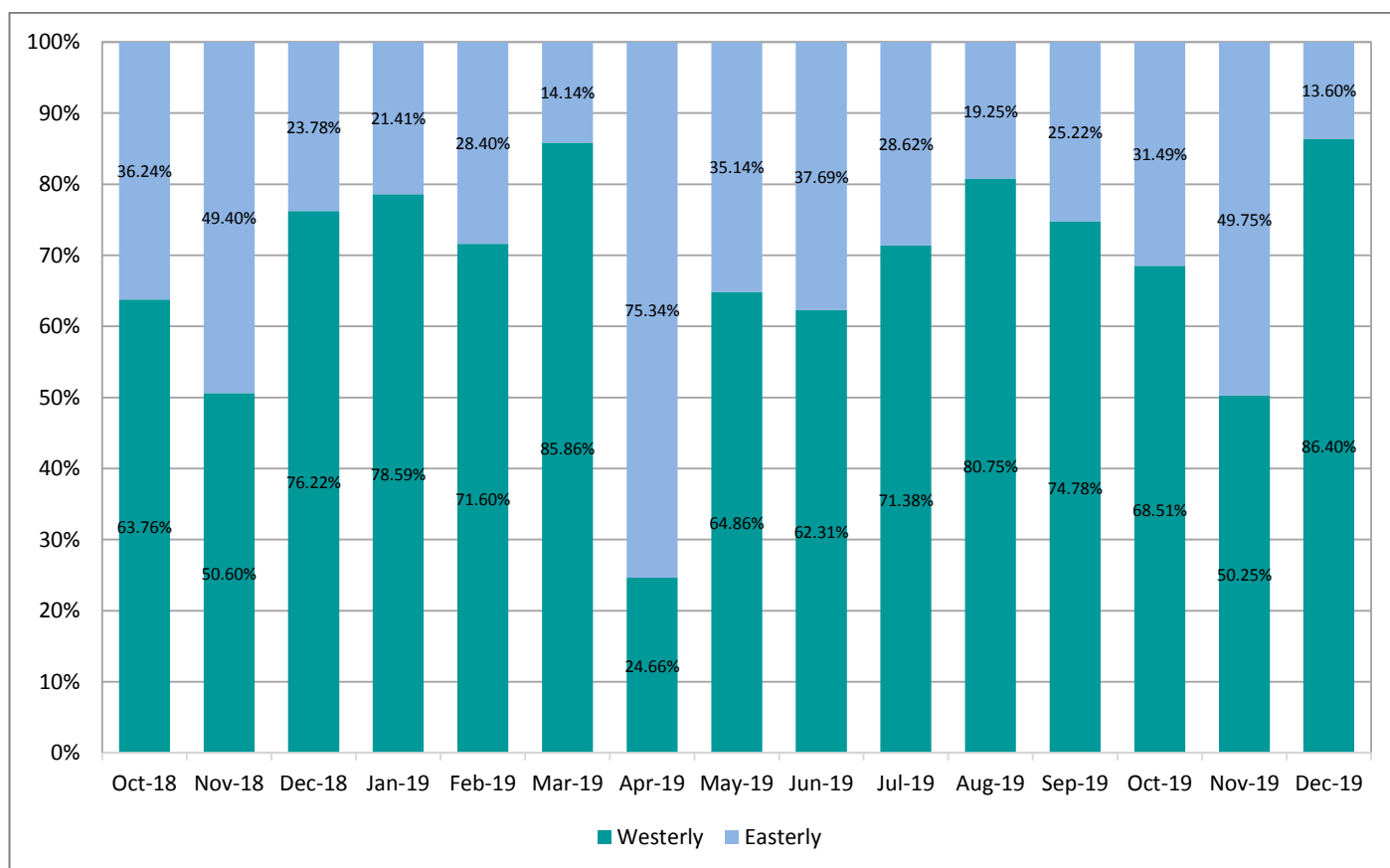
Month	Number of Standby Runway Movements	% of Movements in Month
Oct-18	18	0.1%
Nov-18	41	0.2%
Dec-18	39	0.2%
Jan-19	71	0.4%
Feb-19	34	0.2%
Mar-19	74	0.3%
Apr-19	123	0.5%
May-19	218	0.8%
Jun-19	376	1.4%
Jul-19	723	2.6%
Aug-19	112	0.4%
Sep-19	459	1.8%
Oct-19	547	2.2%
Nov-19	22	0.1%
Dec-19	83	0.4%

NUMBER OF STANDBY RUNWAY MOVEMENTS UTILISED OVER THE PAST 5 YEARS



RUNWAY DIRECTION SPLIT

THE GRAPH BELOW SHOWS THE SPLIT OVER THE 15 MONTH PERIOD (OCTOBER 2018 - DECEMBER 2019)



The Aeronautical Information Publication

An AIP is defined by the International Civil Aviation Organisation (ICAO) as a publication issued by or with the authority of a state and containing aeronautical information of a lasting character essential to air navigation.

It is designed to be a manual containing thorough details of regulations, procedures and other information pertinent to flying aircraft in the particular country to which it relates. It is usually issued by or on behalf of the respective civil aviation administration.

The structure and contents of AIPs are standardized by international agreement through ICAO. AIPs normally have three parts - GEN (general), ENR (en route) and AD (aerodromes).

The Gatwick Aerodrome AIP contains details regarding the noise mitigation measures in place and adherence to these is reported in this section.

ADHERENCE TO NOISE MITIGATION MEASURES AS DETAILED IN THE GATWICK AIP

Each element of this report is preceded, where applicable, by the relevant AIP reference and summary text detailing the purpose of the requirement. Data is then presented on current performance.

It should be noted that Gatwick is 202ft above mean sea level (AMSL) and the NTK system measures height relative to Gatwick elevation and not sea level.

References in the AIP are usually above sea level (quoted as Gatwick QNH) and therefore need to be reduced by 202ft to be comparable with heights, as measured by the NTK system. For example, the requirement to join the ILS at 3,000ft would equate to 2,798ft in the NTK system.

No account is taken of the variability of heights as measured by the radar which, depending on the distance from the radar head, can be +/- 200ft from that indicated. This is obviously allowed for by NATS and ANS when managing operations.

Departures - Noise Infringements

DEPARTURE NOISE LIMITS (DAYTIME)

EGKK AD 2.21 (3(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 Lmax by day (from 0700 to 2300 hours local time) as measured at any noise monitoring terminal at any of the sites referred to in sub-paragraph (2). This is to ensure that departing aircraft do not exceed the stated level during the day.

Year	Number of Day Infringements	Year	Number of Day Infringements
2006	9	2013	0
2007	13	2014	0
2008	2	2015	0
2009	0	2016	0
2010	0	2017	0
2011	0	2018	0
2012	0	2019	1

DEPARTURE NOISE LIMITS (CORE NIGHT & SHOULDERS)

EGKK AD 2.21 (3(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 Lmax by night (from 2300 to 0700 hours local time) and that it will not cause more than 87 dBA Lmax 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). This is to ensure that departing aircraft do not exceed the stated levels during the night and shoulder periods.

Year	Number of Night & Shoulder Infringements	Year	Number of Night & Shoulder Infringements
2006	2	2013	0
2007	2	2014	0
2008	2	2015	0
2009	1	2016	1
2010	0	2017	2
2011	4	2018	0
2012	0	2019	0

*The daytime noise infringement was caused by a Virgin Atlantic Boeing 747-400 Series aircraft which breached the daytime noise limit of the fixed monitor at Russ Hill by 0.9dB (adjusted for tailwind) at 10:29 on the 11 May 2019. The airline has been fined £500 for the infringement and has paid. The funds have been issued to the Gatwick Airport Community Trust (GACT).

Departures - Initial Climb Performance

EGKK AD 2.21 (3(1)) After take-off the aircraft shall be operated in such a way that it is at a height of not less than 1000ft aal (above airfield level) at 6.5 km from start of roll as measured along the departure track of the aircraft. This is to ensure departing aircraft achieve at least that climb gradient in order to reduce the impact on the ground.

Comment:

There were no infringements of the 1,000ft rule during this three month period.

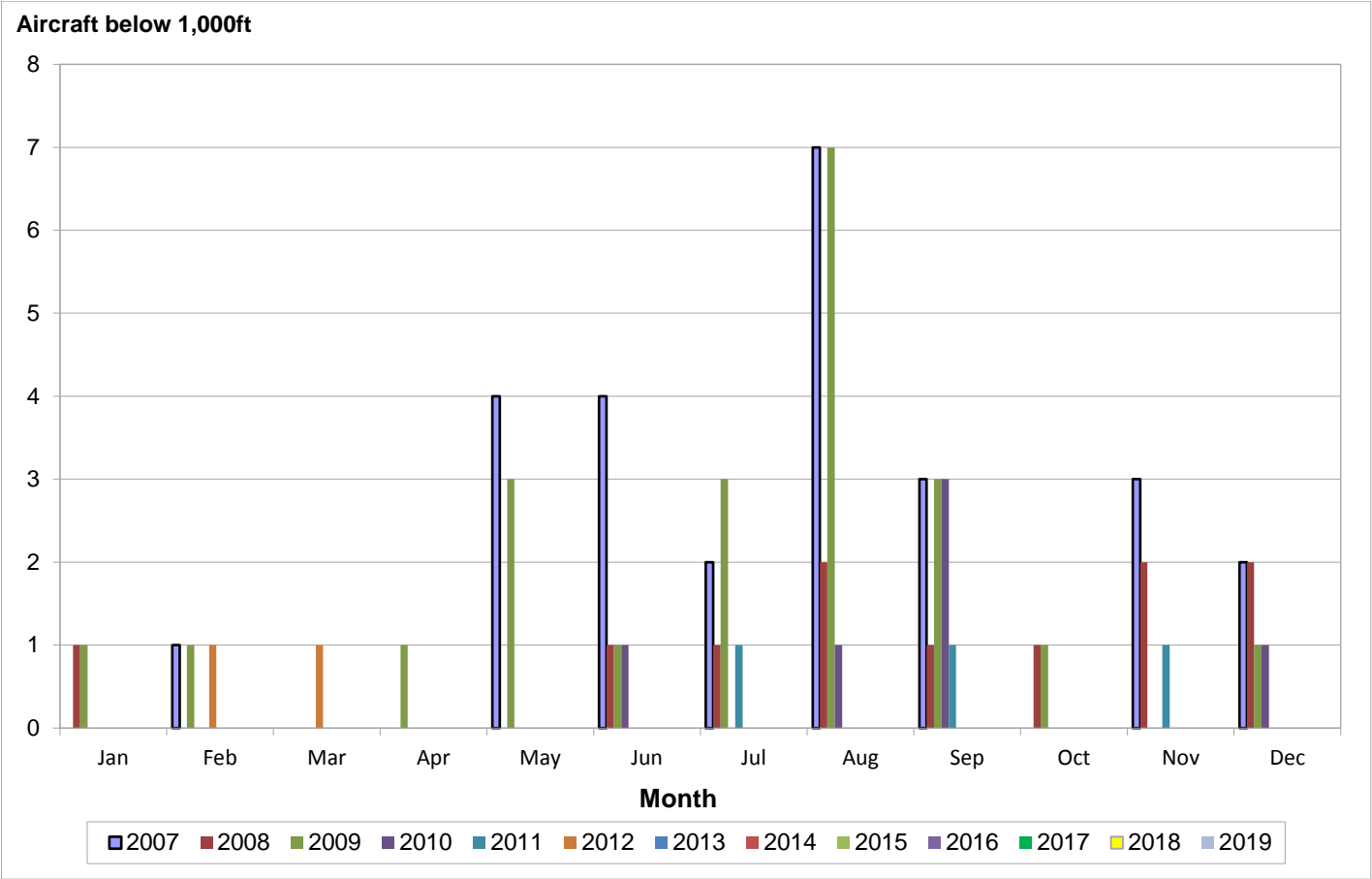
Historically, the summer months are typically the peak period for aircraft failing to meet the 1,000ft requirement, primarily due to the warmer weather which reduces aircraft climb performance.

1,000ft INFRINGEMENT TABLE

Year	Total Infringements	Year	Total Infringements
2006	11	2013	0
2007	26	2014	0
2008	11	2015	0
2009	22	2016	0
2010	6	2017	0
2011	3	2018	0
2012	2	2019	0

THE GRAPH BELOW ILLUSTRATES 1,000ft INFRINGEMENT PERFORMANCE SINCE 2007

Initial Climb Performance



Departures – Track Keeping

All jet aircraft leaving Gatwick Airport should follow flight paths known as Noise Preferential Routes (NPRs) up to a height of 3,000ft or 4,000ft depending on the route. An NPR consists of a 'centreline' and an associated compliance monitoring swathe (3km across, i.e. 1.5km either side of the NPR centreline). As long as aircraft remain within the corridor boundaries, they are deemed to be on-track. A map illustrating the NPRs at Gatwick is available overleaf.

Air Traffic Control (ATC) are responsible for the routing of aircraft once airborne and when 3,000ft or 4,000ft has been reached, they may give a flight a more direct heading, known as vectoring off of the route. This is subject to certain factors, including weather conditions and other traffic in the vicinity. Flights leaving the route below the required height are automatically flagged and details are sent to the airline for investigation. FLOPSC regularly review track keeping performance.

In 2012, Gatwick Airport publicly consulted on the implementation of a more modern form of aircraft navigation called P-RNAV (Precision Route Navigation). After having assessed all consultation feedback, in November 2013, the Civil Aviation Authority (CAA) granted the airport permission to implement P-RNAV on all of our departure routes. Implementing P-RNAV on the published departure routes has resulted in the tracks of departing aircraft being more concentrated within the boundaries of the current Noise Preferential Routes (NPR) conformance monitoring swathes, with one exception, 26LAM/Route 4 has always presented a challenge for modern jets as it was designed to accommodate the propeller-driven aircraft and early jets that were prevalent in the 1960's when the NPR was established.

Implementing P-RNAV on this route required aircraft to fly outside of the current NPR. Therefore, as approved by the CAA, aircraft with a P-RNAV departure SID on this route were not classified as off-track as they were following the published route. Following the introduction of P-RNAV in April 2014, the CAA conducted a Post Implementation Review (PIR) on all of the departure routes. The Review recommended that 26LAM/Route 4 be modified so that departing aircraft are compliant and remain within the published NPR swathe. It now requires all Standard Instrument Departure routes (SID's) to be counted in the track keeping statistics whereas previously, the Route 4 P-RNAV SID's were not included. Following the PIR and consultation, the CAA concluded that the modified Route 4 SID's achieved a satisfactory replication of the nominal track of the corrected conventional SID and confirmed the P-RNAV SID designs currently published in the UK Aeronautical Information Publication as permanent.

Following the quashing of the CAA's April 2017 decision by consent, Gatwick was working to revert the Route 4 conventional SID's to their position as they were before 7th April 2017. In support of this, Gatwick completed a comprehensive safety review, validated this with an independent Instrument Flight Procedure Designer and submitted the changes to the CAA for approval in May 2018. (Note: this change did not affect the distribution of traffic).

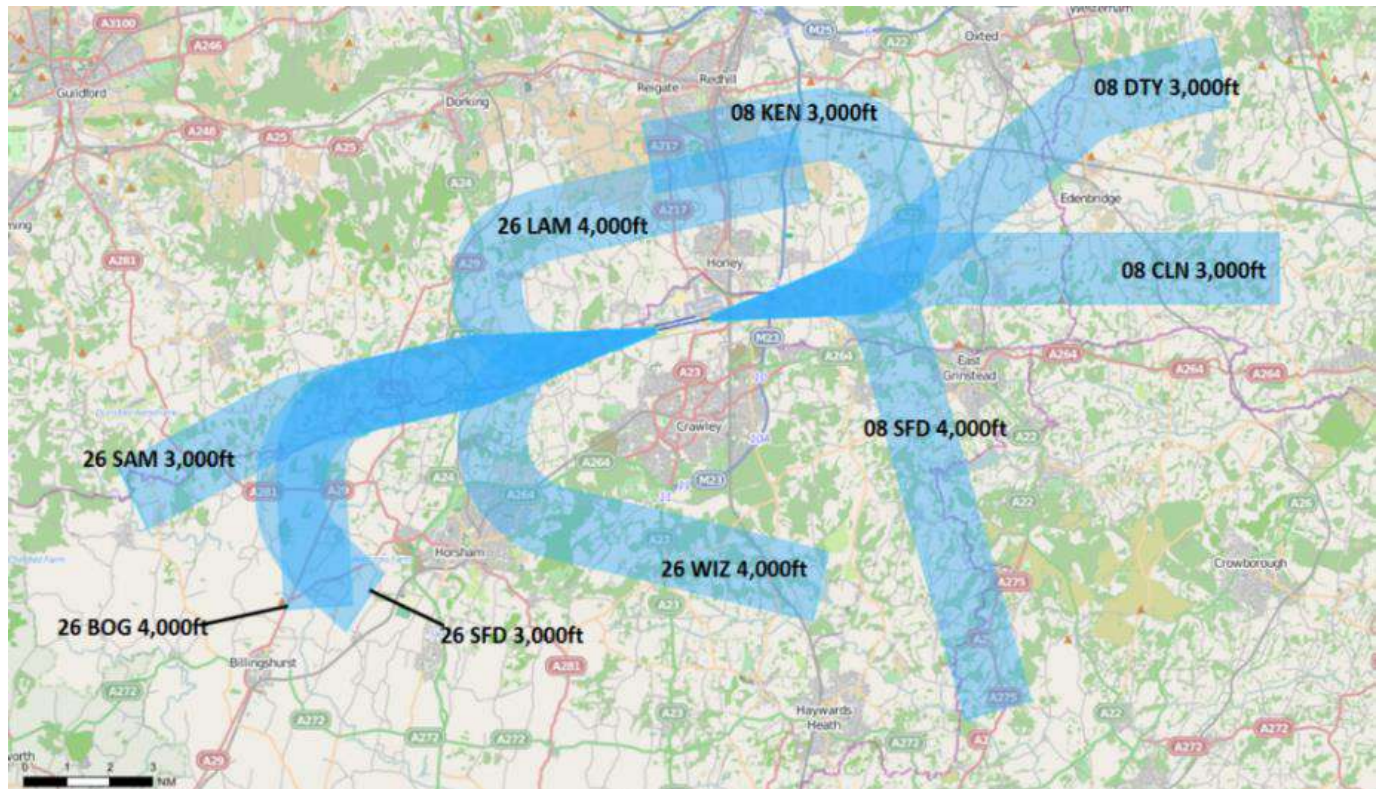
Recently the CAA was served by Plane Justice with a pre-action protocol – an early stage notification of a potential legal challenge – in relation to Route 4. This prompted the CAA as a consequence to instruct Gatwick to review these conventional Route 4 SIDs. Due to the potential change to the lateral track of the conventional departure routes this would require the development of a full Airspace Change Proposal (ACP). A rigorous legal process that is likely to take up to two years to achieve. Gatwick believes that this would introduce significant risk to the current, ongoing Route 4 ACP. Our key concern is that the proposal from the CAA risks confusing stakeholders and local residents with multiple consultations at the same time. It would also add significant delay to the already challenging timescales for the existing Route 4 consultation, which itself has the potential to generate understandable frustration among local communities looking for a swift resolution to this matter.

After careful consideration we have decided not to carry out this review. We expect that our decision will allow the CAA to draw to a close the 2012 airspace change on Route 4 by requesting Gatwick to de-notify the current temporary Route 4 RNAV Standard Instrument Departures (it is unlikely that this request will change the current distribution of traffic). This will de-couple both the 2012 airspace change and the one currently being led by Gatwick. It will also simplify the consultation process and allow Gatwick to continue its work following the correct procedure taking into account the various relevant factors to achieve an end result as soon as possible.

You can follow progress of this process using the CAA's Airspace Change Portal: <https://airspacechange.caa.co.uk/>

There has also been a modification to our 08CLN/Route 5 NPR which has been in place since the 30th March 2017, as advised by the CAA. Previously, aircraft were flying slightly to the south of the NPR centreline and this modification aims to better replicate the existing conventional SID route and bring aircraft back towards the centre. This was monitored by the CAA for a six month period until the 30th September 2017 to ensure the aircraft were operating as anticipated. Gatwick is awaiting a decision from the CAA regarding its status.

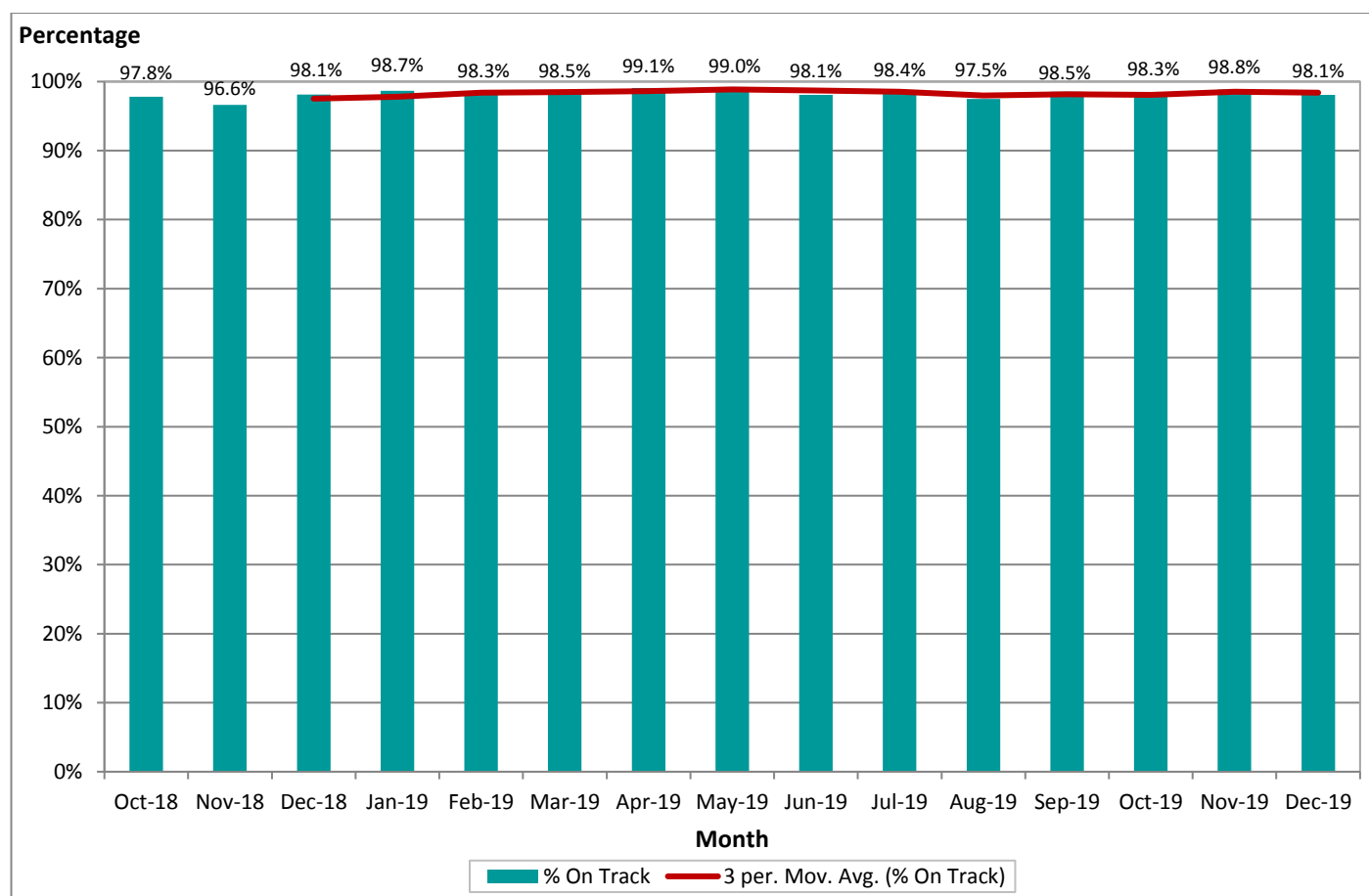
THE MAP BELOW ILLUSTRATES THE NOISE PREFERENTIAL ROUTES USED BY DEPARTING AIRCRAFT WITH MINIMUM VECTORING ALTITUDE FIGURES



THE TABLE BELOW ILLUSTRATES TRACK KEEPING PERFORMANCE OVER 15 MONTHS

Month	Total			Westerly			Easterly		
	Deviations	Departures	%	Deviations	Departures	%	Deviations	Departures	%
Oct-18	274	12530	2.19%	258	7966	3.24%	16	4564	0.35%
Nov-18	327	9705	3.37%	314	4904	6.40%	13	4801	0.27%
Dec-18	189	10191	1.85%	184	7762	2.37%	5	2429	0.21%
Jan-19	131	9895	1.32%	130	7806	1.67%	1	2089	0.05%
Feb-19	167	9963	1.68%	160	7098	2.25%	7	2865	0.24%
Mar-19	165	10926	1.51%	165	9751	1.69%	0	1175	0.00%
Apr-19	109	11989	0.91%	88	2948	2.99%	21	9041	0.23%
May-19	127	13041	0.97%	109	8440	1.29%	18	4601	0.39%
Jun-19	255	13280	1.92%	245	8179	3.00%	10	5101	0.20%
Jul-19	217	13774	1.58%	211	9812	2.15%	6	3962	0.15%
Aug-19	354	14080	2.51%	348	11448	3.04%	6	2632	0.23%
Sep-19	190	13051	1.46%	186	9776	1.90%	4	3275	0.12%
Oct-19	213	12187	1.75%	199	8314	2.39%	14	3873	0.36%
Nov-19	107	9221	1.16%	92	4718	1.95%	15	4503	0.33%
Dec-19	203	10527	1.93%	203	9098	2.23%	0	1430	0.00%

THE GRAPH BELOW ILLUSTRATES TRACK KEEPING PERFORMANCE OVER 15 MONTHS WITH A TREND LINE



UNUSUAL TRACKS

Some 'unusual tracks' taken by departing aircraft are recorded by our NTK system and these can occur for a number of reasons, such as weather avoidance. These can result in the aircraft leaving the NPR below the required altitude or aircraft that have vectored at the required altitude and then misdirected to avoid conflict with traffic from other airports. All unusual tracks are investigated with the airline concerned.

Comment: During this three month period, there were no unusual tracks identified.

Departures – Over Congested Areas

THE WIZAD NOISE PREFERENTIAL ROUTE

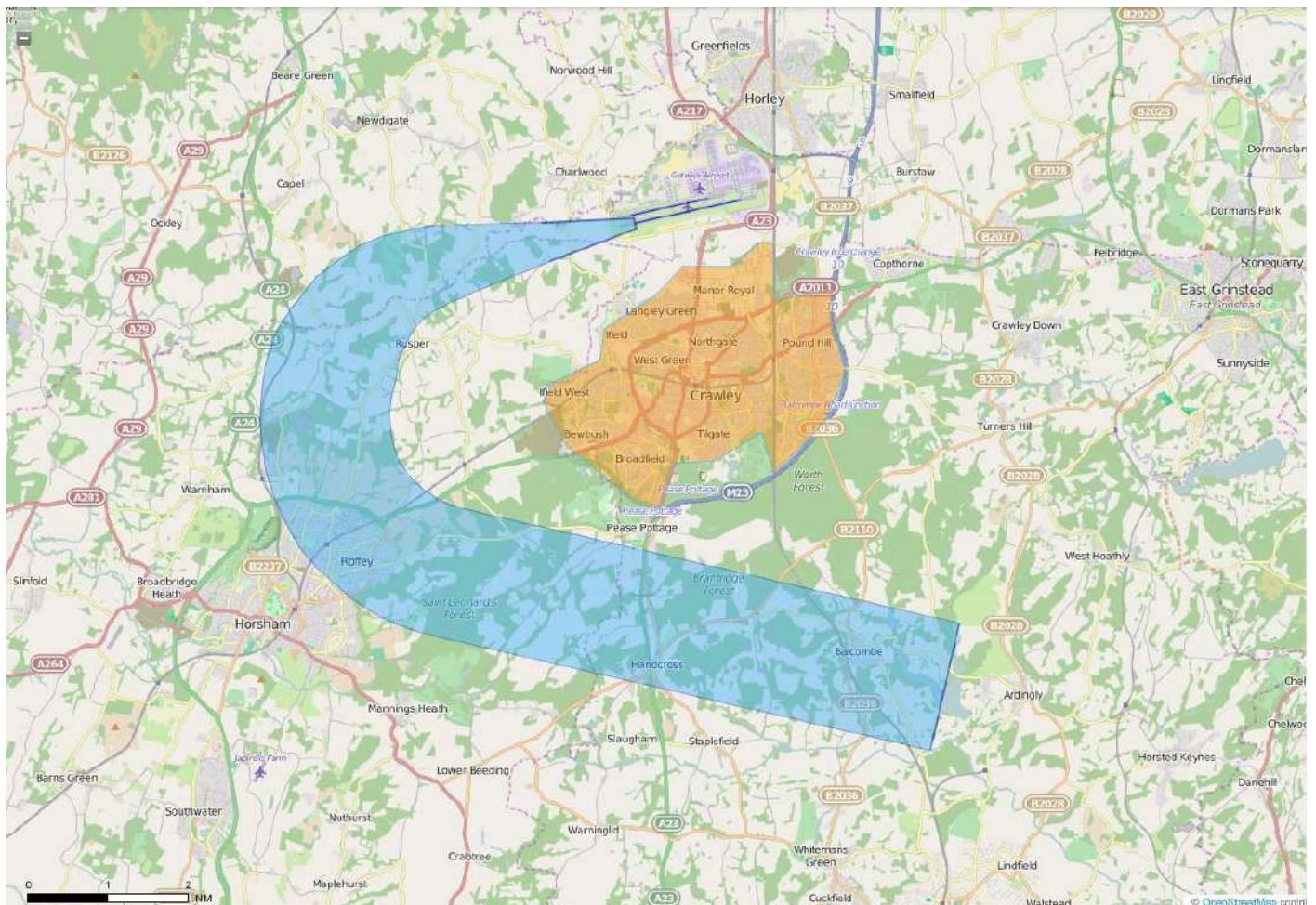
The WIZAD NPR (26WIZ or Route 9) was designated by the Government at the same time as all other Gatwick departure routes; however, it is not used on an equal basis with the other routes. It is a Tactical Offload Route and is not usually offered as part of a flight path. If the 26LAM Route (or Route 4) is very busy, WIZAD will be offered as a last minute alternative to ease the load.

As it is only a Tactical Offload Route, it is not well known and it is only offered to local pilots and usually used by more modern, high performance aircraft. It will also be used during periods of poor weather when an alternative to the usual routes may be required as aircraft should not fly through thunderstorms.

EGKK AD 2.21 (8)(c) *The ATC clearance via Mayfield specified in the second column of the table will not be available between 2300 hours and 0700 hours local time. Aircraft following the Noise Preferential Routing Procedure which relates to that clearance shall not fly over Crawley, Crawley Down or East Grinstead. This is to avoid aircraft noise from departing aircraft over areas of high population at night on the 26 WIZAD NPR.*

Comment: During this three month period, there were no departures during the restricted period on the 26 WIZAD NPR.

THE MAP BELOW ILLUSTRATES THE CRAWLEY TOWN BOUNDARY WITH NOISE PREFERENTIAL ROUTE 26 WIZAD



Overflight of Crawley and Horley

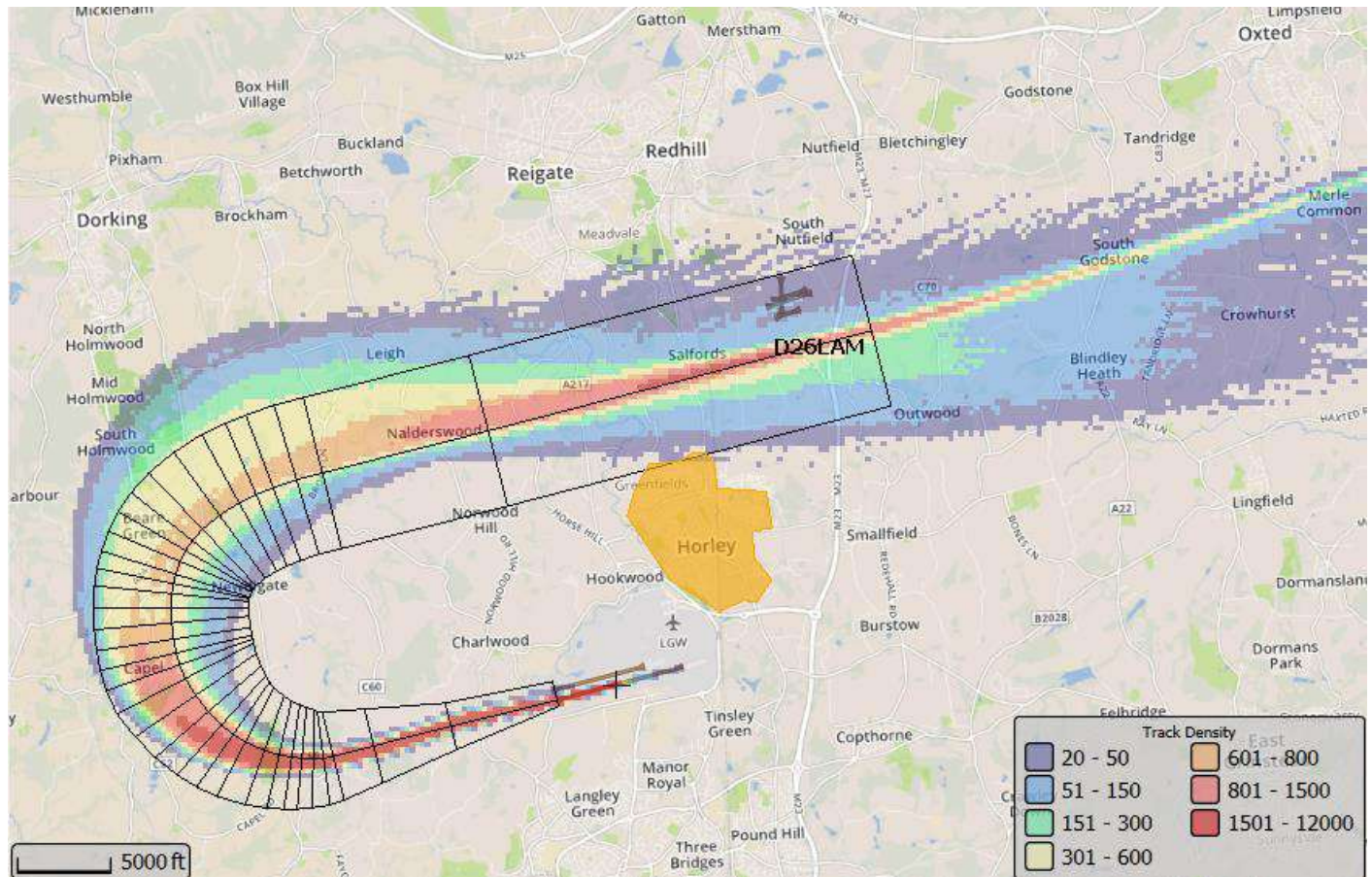
EGKK AD 2.21 (9) *After taking off the aircraft shall avoid flying over the congested areas of Horley and Crawley.*

This is to avoid aircraft noise from departing aircraft over areas of high population.

Comment: During this period, there were no departing flights that passed over Crawley. It is important to note that Horley does experience overflight from Heathrow Airport traffic. The current construction of the SID is of the 'course to fix' type which determines the course to fly terminating at a waypoint

whereas the 'radius to fix' specifies the curved path defined by radius, arc length and fix with the angle of bank being varied to achieve the specified path. Accelerating to a fixed speed in times of strong south westerly winds (2000' wind >25kts) can exceed the aircraft's authorised limits. This leads to a variance between different aircraft types and operators and therefore, some aircraft fly further north or south than others. The wind and weather (e.g. thunderstorms) also has an effect on the headings of aircraft which may result in direct overflight of Horley.

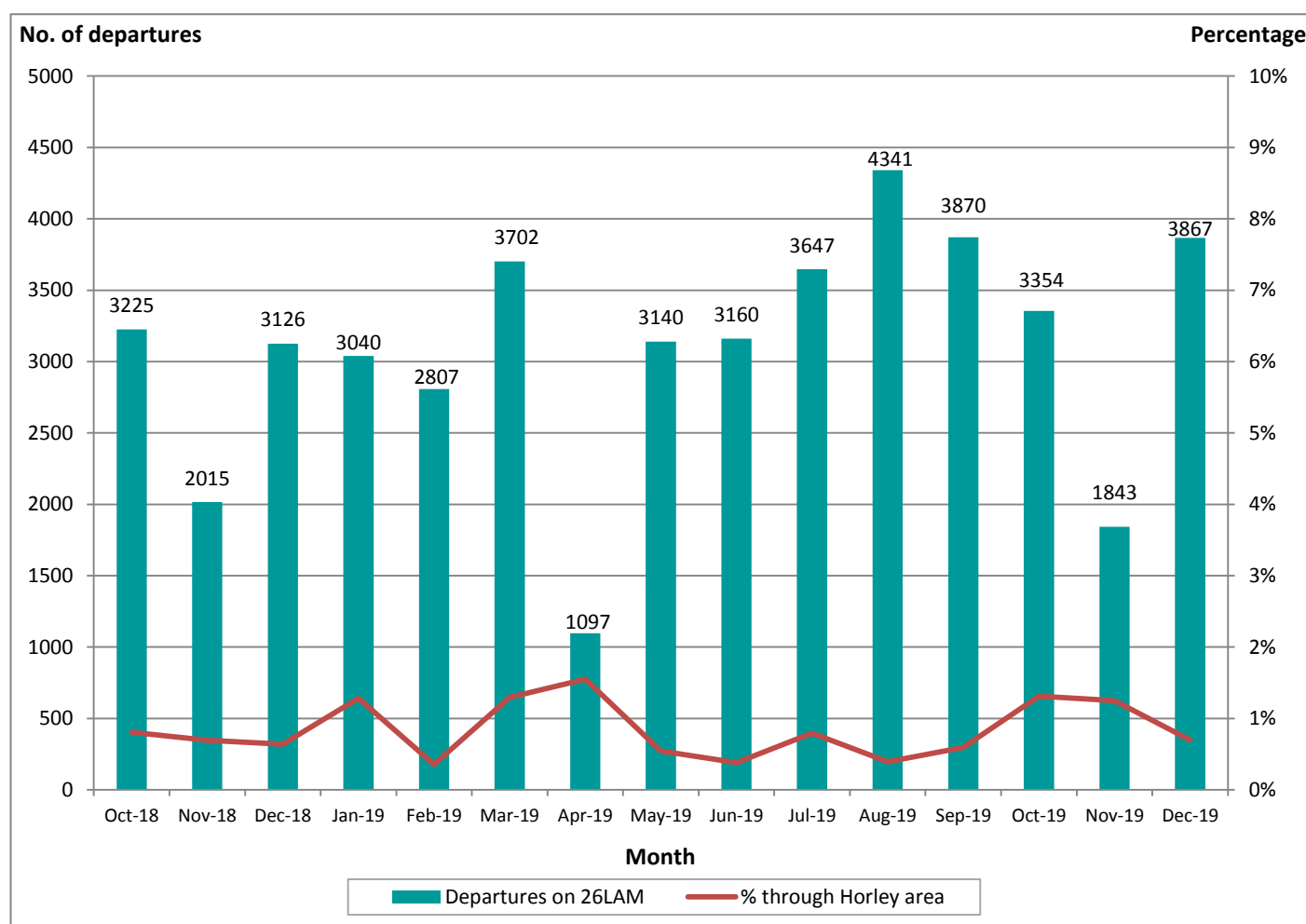
THE MAP BELOW ILLUSTRATES THE TRACK DENSITY OF DEPARTING AIRCRAFT ON THE 26 LAM DEPARTURE ROUTE DURING THE THREE MONTH PERIOD WITH HORLEY TOWN HIGHLIGHTED



THE TABLE BELOW ILLUSTRATES THE ANALYSIS OF HORLEY OVERFLIGHT

Month	Deps on 26LAM	Horley Area	% through Horley Area	Month	Deps on 26LAM	Horley Area	% through Horley Area	Month	Deps on 26LAM	Horley Area	% through Horley Area
Jan-17	2004	19	0.95%	Jan-18	3056	29	0.95%	Jan-19	3040	39	1.28%
Feb-17	2391	22	0.92%	Feb-18	2075	19	0.92%	Feb-19	2807	10	0.36%
Mar-17	3385	10	0.30%	Mar-18	2314	13	0.56%	Mar-19	3702	48	1.30%
Apr-17	3307	15	0.45%	Apr-18	2793	9	0.32%	Apr-19	1097	17	1.55%
May-17	2347	9	0.38%	May-18	2025	15	0.74%	May-19	3140	17	0.54%
Jun-17	4075	26	0.64%	Jun-18	2648	14	0.53%	Jun-19	3160	12	0.38%
Jul-17	4310	20	0.46%	Jul-18	3316	9	0.27%	Jul-19	3647	29	0.80%
Aug-17	4162	12	0.29%	Aug-18	4088	19	0.46%	Aug-19	4341	17	0.39%
Sep-17	4040	25	0.62%	Sep-18	3764	20	0.53%	Sep-19	3870	23	0.59%
Oct-17	4526	28	0.62%	Oct-18	3225	26	0.81%	Oct-19	3354	44	1.31%
Nov-17	3558	30	0.84%	Nov-18	2015	14	0.69%	Nov-19	1843	23	1.25%
Dec-17	3947	35	0.89%	Dec-18	3126	20	0.64%	Dec-19	3867	27	0.70%

THE GRAPH BELOW ILLUSTRATES THE ANALYSIS OF HORLEY OVERFLIGHT



Arrivals – Continuous Descent Operations (CDO)

A CDO (also known as a Continuous Decent Approach, CDA) is a noise abatement technique of flight during which a pilot descends at a rate with the intention of achieving a continuous descent to join the glide path at the correct height for the distance. This procedure thereby avoids the need for extended periods of level flight and results in keeping the aircraft higher for longer reducing the need for thrust. In addition to aiding noise reduction, this also reduces fuel burn thereby cutting emissions and producing an overall environmental benefit.

A CDO is a procedure designed to try and avoid prolonged periods of level flight below 7,000ft*. Studies have determined that elements of prolonged level flight are noisier than when following CDO. The aviation industry is working hard to improve compliance and an Arrivals Code of Practice (ACoP) has been produced by the Department for Transport (DfT) which aims to promote the use of CDO as a regular practice for all arriving aircraft:

‘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 7,000ft* QNH and ‘level flight’ is interpreted as any segment of flight having a height change of not more than 50ft over a track distance of 2nm or more, as recorded in the airport Noise and Track Keeping system.’

A CDO is not a precise art and relies on the accuracy of track miles provided by ATC to the flight crew coupled with pilot skill, weather conditions and operational circumstances. Additionally, different aircraft types perform differently requiring varying operating practices to be utilised in order to slow the aircraft down and meet speed restrictions. Therefore the procedures in the ACoP are advisory rather than compulsory, so there are no sanctions against pilots or airlines that fail to comply with the measures. Despite this, publication of the ACoP has resulted in significant improvements in CDO achievement at all times of day and night. The Airspace Office are actively working with the

airlines to encourage the use of CDO as a best practice method by continually providing monthly reports.

Airlines and pilots are keen to adopt this procedure for economic as well as environmental reasons and are active in promoting CDO within their companies.

CDO data is measured over three time periods:

- The Core Night period (2330-0600)
- The Day and Shoulder periods (0600–2330)
- The 24-hour period

The following text appears in the UK AIP Noise Abatement Procedures for Gatwick Airport:

EGKK AD 2.21 (10) *Where the aircraft is approaching the aerodrome to land it shall, commensurate with its ATC clearance, minimise noise disturbance by the use of continuous decent and low power, low drag operating procedures (referred to in Detailed Procedures for descent clearance in EGKK AD 2.22 of the UK AIP). 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 in 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. This is to avoid prolonged periods of level flight and keep aircraft as high as possible for as long as possible.*

*As a result of the Independent Review of Arrivals, it was recommended (Imm-05) that the CDO monitoring altitude be increased from 6,000ft to 7,000ft as of 1st August 2016.

It should be noted that due to the termination of the Casper NTK system on 31st March 2019, the figures for Q1 2019 only cover 1st January – 30th March 2019 inc.

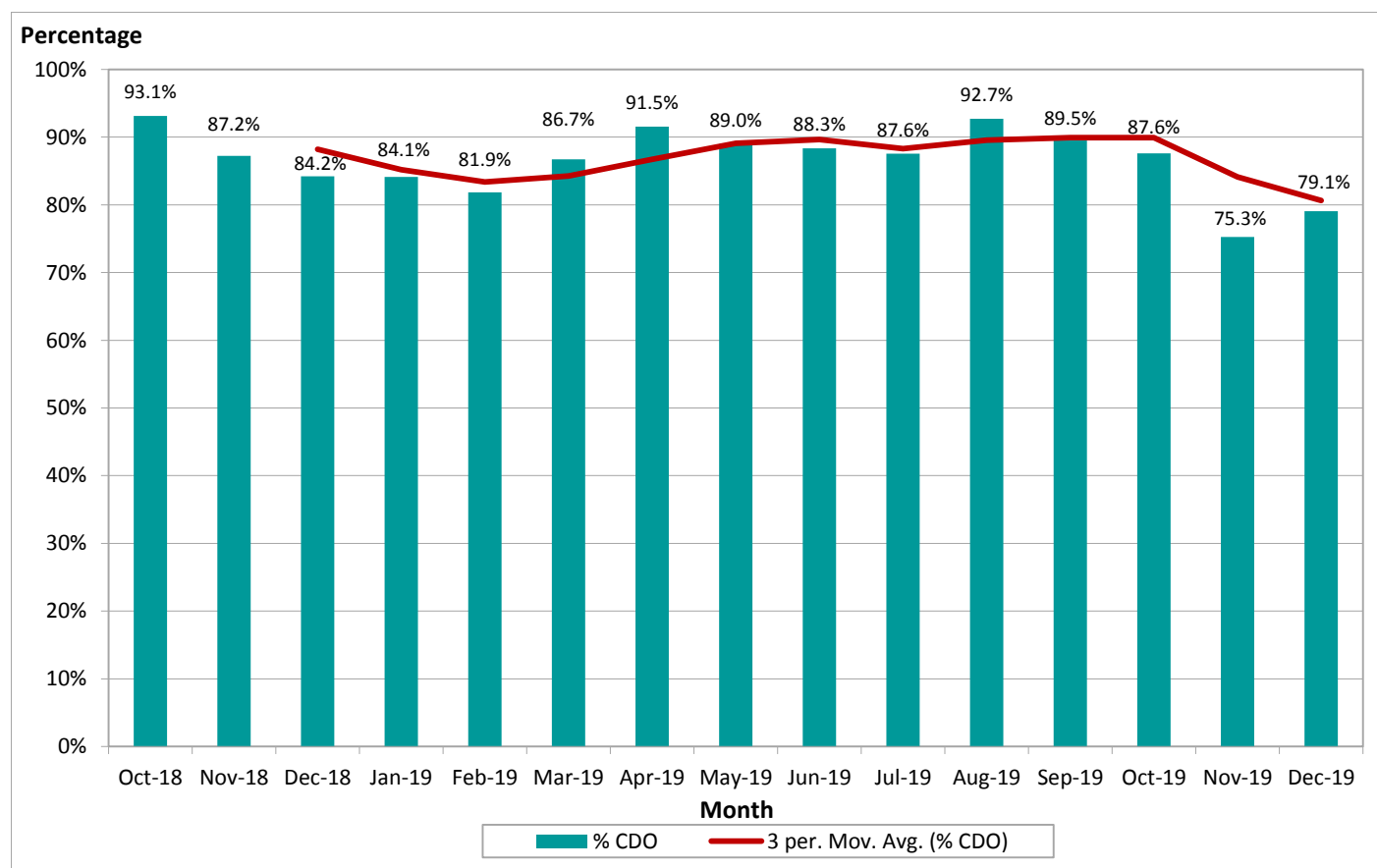


CORE NIGHT PERIOD (2330-0600)

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO CORE NIGHT TIME PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Oct-18	1122	77	93.14%	416	25	93.99%	706	52	92.63%
Nov-18	329	42	87.23%	185	23	87.57%	144	19	86.81%
Dec-18	437	69	84.21%	117	15	87.18%	320	54	83.13%
Jan-19	315	50	84.13%	66	6	90.91%	249	44	82.33%
Feb-19	364	66	81.87%	106	18	83.02%	258	48	81.40%
Mar-19	445	59	86.74%	55	6	89.09%	390	53	86.41%
Apr-19	816	68	91.67%	664	53	92.02%	152	15	90.13%
May-19	1246	137	89.00%	479	47	90.19%	767	90	88.27%
Jun-19	1595	186	88.34%	574	71	87.63%	1021	115	88.74%
Jul-19	1891	235	87.57%	499	48	90.38%	1392	187	86.57%
Aug-19	1873	137	92.69%	497	22	95.57%	1376	115	91.64%
Sep-19	1669	175	89.51%	460	37	91.96%	1209	138	88.59%
Oct-19	1072	133	87.59%	224	24	89.29%	848	109	87.15%
Nov-19	267	66	75.28%	153	33	78.43%	114	33	71.05%
Dec-19	473	99	79.07%	35	3	91.43%	438	96	78.08%

THE GRAPH BELOW ILLUSTRATES THE CORE NIGHT TIME CDO COMPLIANCE WITH A TREND LINE

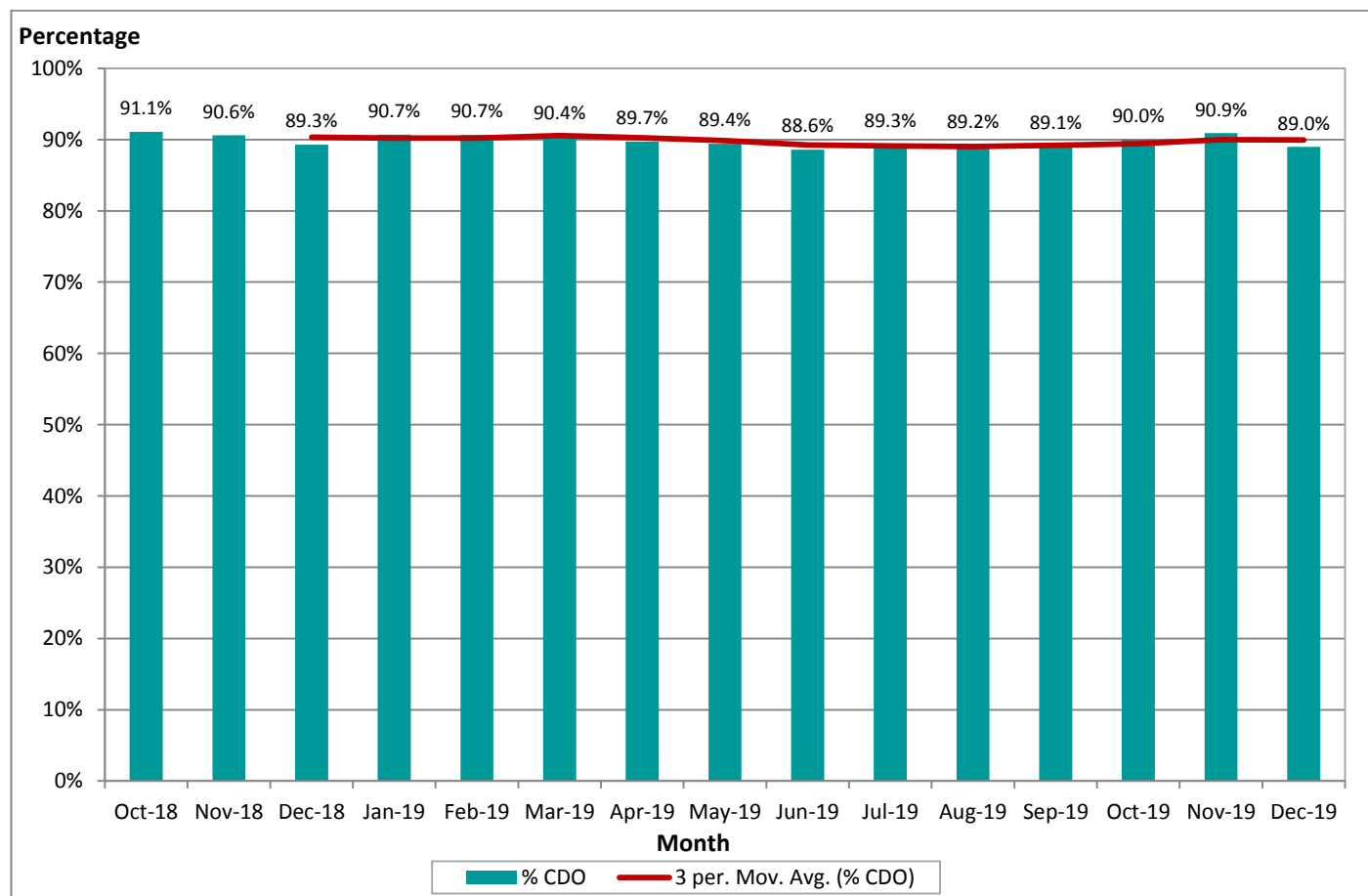


DAYTIME AND SHOULDER PERIOD CDO ACHIEVEMENT (0600-2330)

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO DAYTIME AND SHOULDER PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Oct-18	11434	1017	91.11%	4103	382	90.69%	7331	635	91.34%
Nov-18	9340	876	90.62%	4591	393	91.44%	4749	483	89.83%
Dec-18	9770	1045	89.30%	2304	216	90.63%	7466	829	88.90%
Jan-19	9568	891	90.69%	2081	162	92.22%	7487	729	90.26%
Feb-19	9596	897	90.65%	2688	216	91.96%	6908	681	90.14%
Mar-19	10494	1009	90.38%	1170	72	93.85%	9324	937	89.95%
Apr-19	11195	1149	89.74%	8377	849	89.87%	2818	300	89.35%
May-19	11787	1245	89.44%	4082	363	91.11%	7705	882	88.55%
Jun-19	11676	1331	88.60%	4332	455	89.50%	7344	876	88.07%
Jul-19	11893	1272	89.30%	3426	361	89.46%	8467	911	89.24%
Aug-19	12193	1316	89.21%	2289	208	90.91%	9904	1108	88.81%
Sep-19	11421	1244	89.11%	2859	250	91.26%	8562	994	88.39%
Oct-19	11123	1111	90.01%	3581	348	90.28%	7542	763	89.88%
Nov-19	8965	816	90.90%	4525	368	91.87%	4440	448	89.91%
Dec-19	10053	1107	88.99%	1400	105	92.50%	8653	1002	88.42%

THE GRAPH BELOW ILLUSTRATES THE DAY & SHOULDER CDO COMPLIANCE WITH A TREND LINE

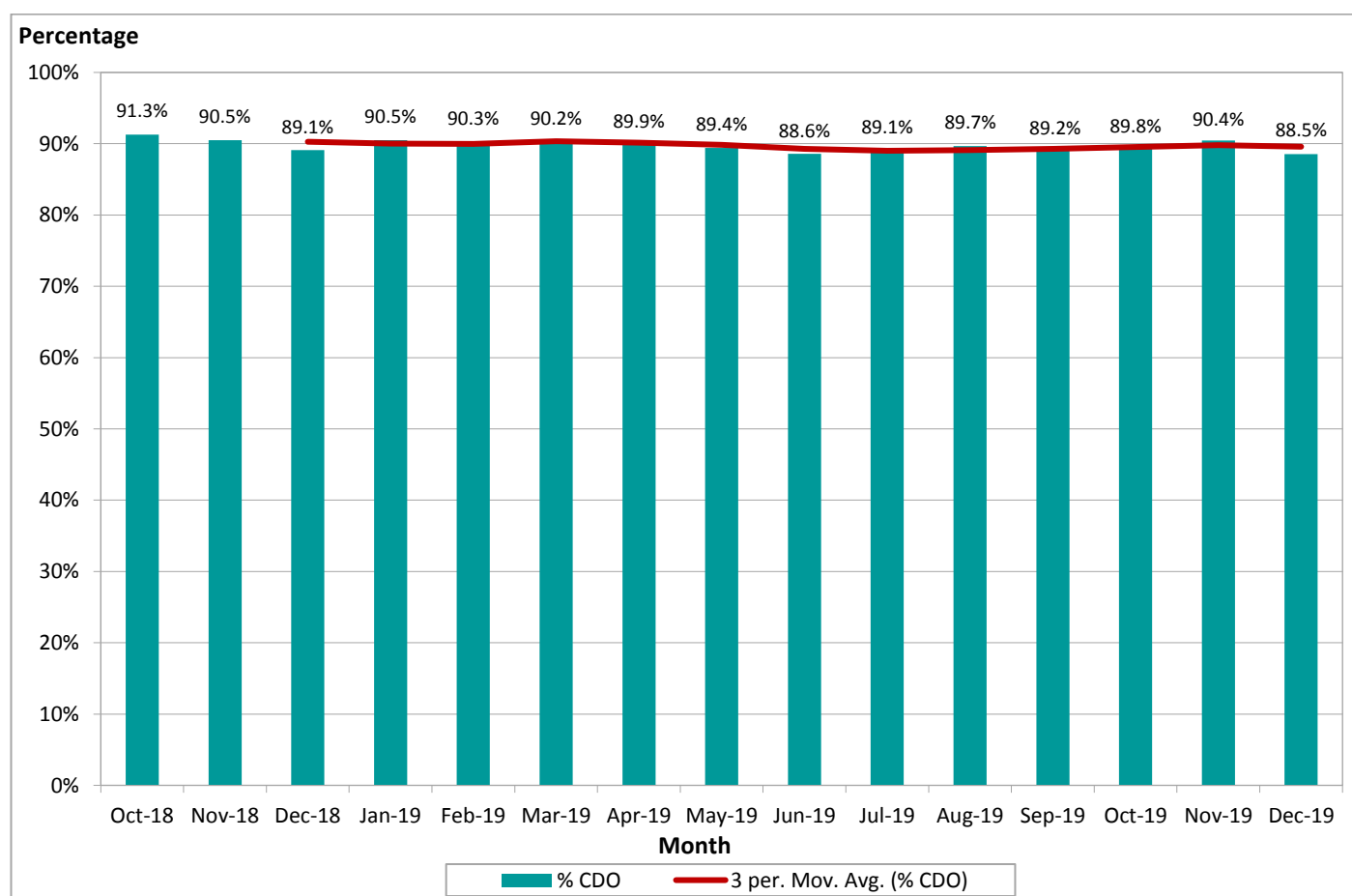


24 HOUR PERIOD CDO ACHIEVEMENT

THE TABLE BELOW ILLUSTRATES THE BREAKDOWN OF THE CDO 24 HOUR TIME PERIOD

Month	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	Total	Non CDO	% CDO	Total	Non CDO	% CDO	Total	Non CDO	% CDO
Oct-18	12556	1094	91.29%	4519	407	90.99%	8037	687	91.45%
Nov-18	9669	918	90.51%	4776	416	91.29%	4893	502	89.74%
Dec-18	10207	1114	89.09%	2421	231	90.46%	7786	883	88.66%
Jan-19	9883	941	90.48%	2147	168	92.18%	7736	773	90.01%
Feb-19	9960	963	90.33%	2794	234	91.62%	7166	729	89.83%
Mar-19	10939	1068	90.24%	1225	78	93.63%	9714	990	89.81%
Apr-19	12011	1217	89.87%	9041	903	90.01%	2970	315	89.39%
May-19	13033	1382	89.40%	4561	410	91.01%	8472	972	88.53%
Jun-19	13271	1517	88.57%	4906	526	89.28%	8365	991	88.15%
Jul-19	13784	1507	89.07%	3925	409	89.58%	9859	1098	88.86%
Aug-19	14066	1453	89.67%	2786	230	91.74%	11280	1223	89.16%
Sep-19	13090	1419	89.16%	3319	287	91.35%	9771	1132	88.41%
Oct-19	12195	1244	89.80%	3805	372	90.22%	8390	872	89.61%
Nov-19	9232	882	90.45%	4678	401	91.43%	4554	481	89.44%
Dec-19	10526	1206	88.54%	1435	108	92.47%	9091	1098	87.92%

THE GRAPH BELOW ILLUSTRATES THE 24 HOUR PERIOD CDO COMPLIANCE WITH A TREND LINE



Arrivals – Over Congested Areas

OVERFLIGHT OF CONGESTED AREAS

AD 2-EGKK1-12 (11) Before landing at the aerodrome the aircraft shall maintain as high an altitude as practicable and shall not fly over the congested areas of Crawley, East Grinstead, Horley and Horsham at an altitude of less than 3,000ft (Gatwick QNH) nor over the congested area of Lingfield at an altitude of less than 2,000ft (Gatwick QNH).

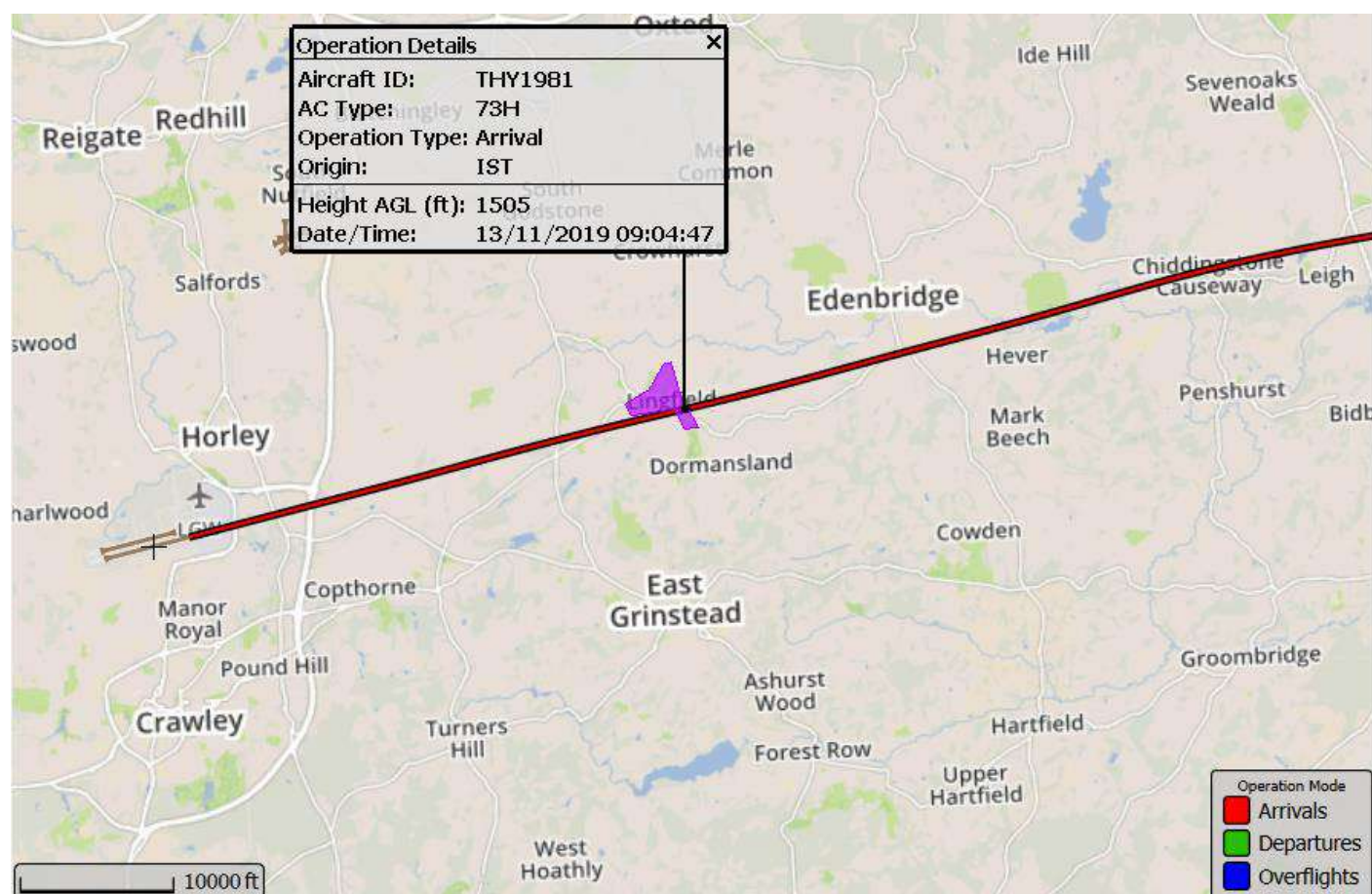
N.B. 2,000ft – (202ft (airfield elevation) + 100ft (radar/ILS tolerance)) = 1,698ft on Airports Noise & Aircraft Tracking System

Comment: There were no arriving flights which passed over the towns of Horley or East Grinstead other than a small number of go-arounds. The map overleaf illustrates these analysis zones. There were two departures which passed over Crawley due to weather avoidance.

A polygon located over the urban area at about 7 nautical miles (NM) from touchdown is normally used to analyse tracks over the Lingfield area.

During the analysis period, there were a total of 52 arrivals that passed through this area. Aircraft tracks were analysed for October, November and December 2019 and there was a flight which passed over Lingfield below the altitude of 1,698ft (2,000ft Gatwick QNH). This was a Turkish Airlines Boeing 737-800 Series which passed over Lingfield at an altitude of 1,498ft. The airline in question were contacted regarding this flight and they confirmed this was due to pilot error.

THE MAP BELOW ILLUSTRATES THE TURKISH AIRLINES FLIGHT THAT PASSED OVER LINGFIELD BELOW 1,698FT



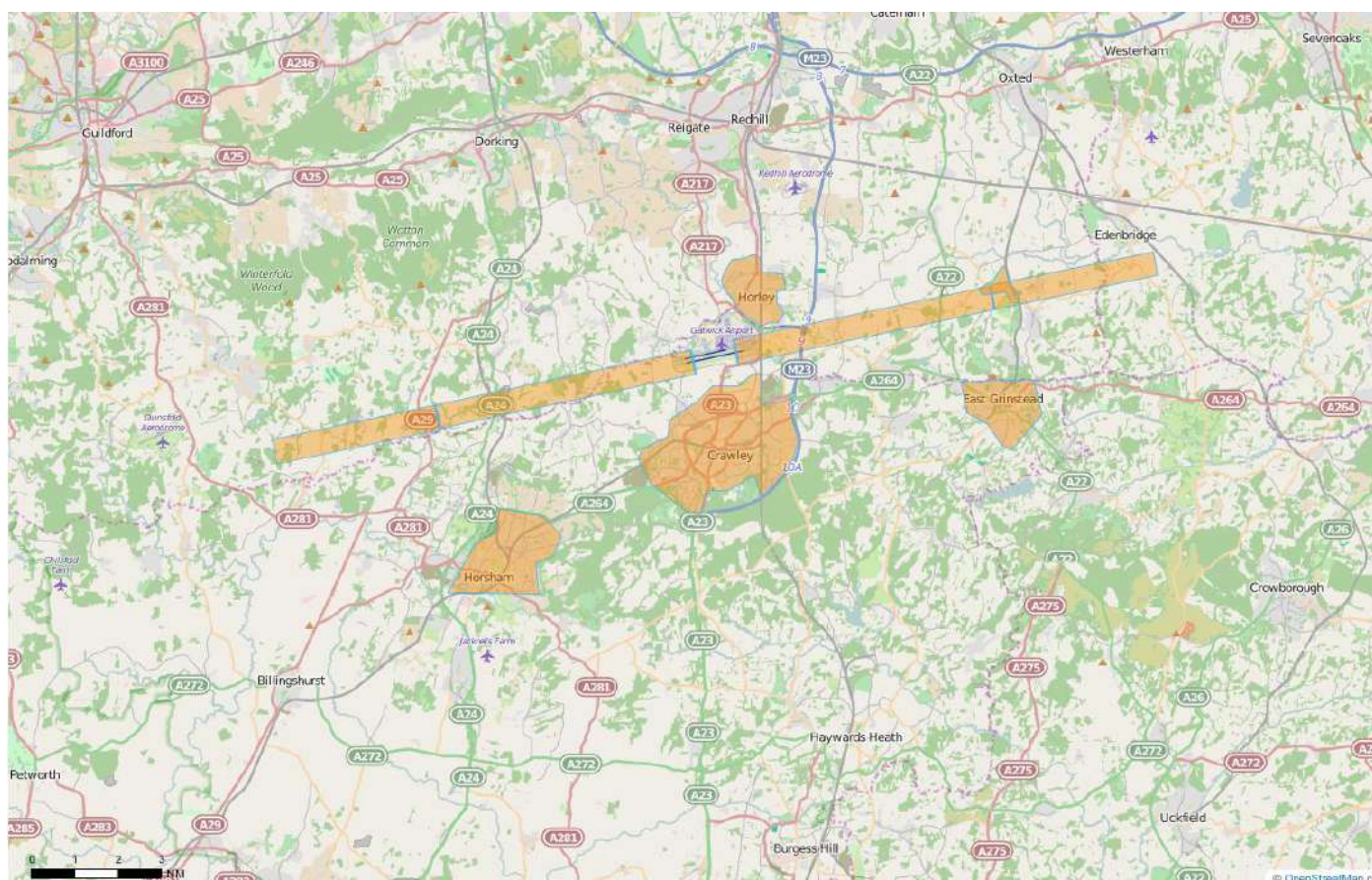
A) DAY TIME JOINING HEIGHT (0600-2359)

EGKK AD 2.21 (13(a)) *Where the aircraft is using the ILS in IMC or VMC it shall not descend below 2,000ft (Gatwick QNH) before intercepting the glidepath, nor thereafter fly below the glidepath. This is aimed at keeping aircraft as high as possible for as long as possible.*

The map below shows the congested urban areas, a series of gates running parallel to the extended runway centreline for around 6NM east and west of the airport, used to monitor low arrivals, joining the ILS below 2,000ft.

There were 31,953 arrivals recorded by the Airports Noise and Track Keeping system between 1st October and 31st December 2019. Of these, the number of arrivals that were operating below an altitude of 2,000ft (equivalent to a height in the NTK system of 1,798ft) through one or more of the analysis gates was 4 (>0.1%). This figure is a sum of both easterly and westerly arrivals joining the ILS.

THE FOLLOWING MAP ILLUSTRATES THE ANALYSIS ZONES USED FOR LATE AND LOW ARRIVALS FOR BOTH ENDS OF THE AIRFIELD AND THE CONGESTED URBAN AREAS



B) NIGHT TIME JOINING HEIGHT AND DISTANCE (2330-0559)

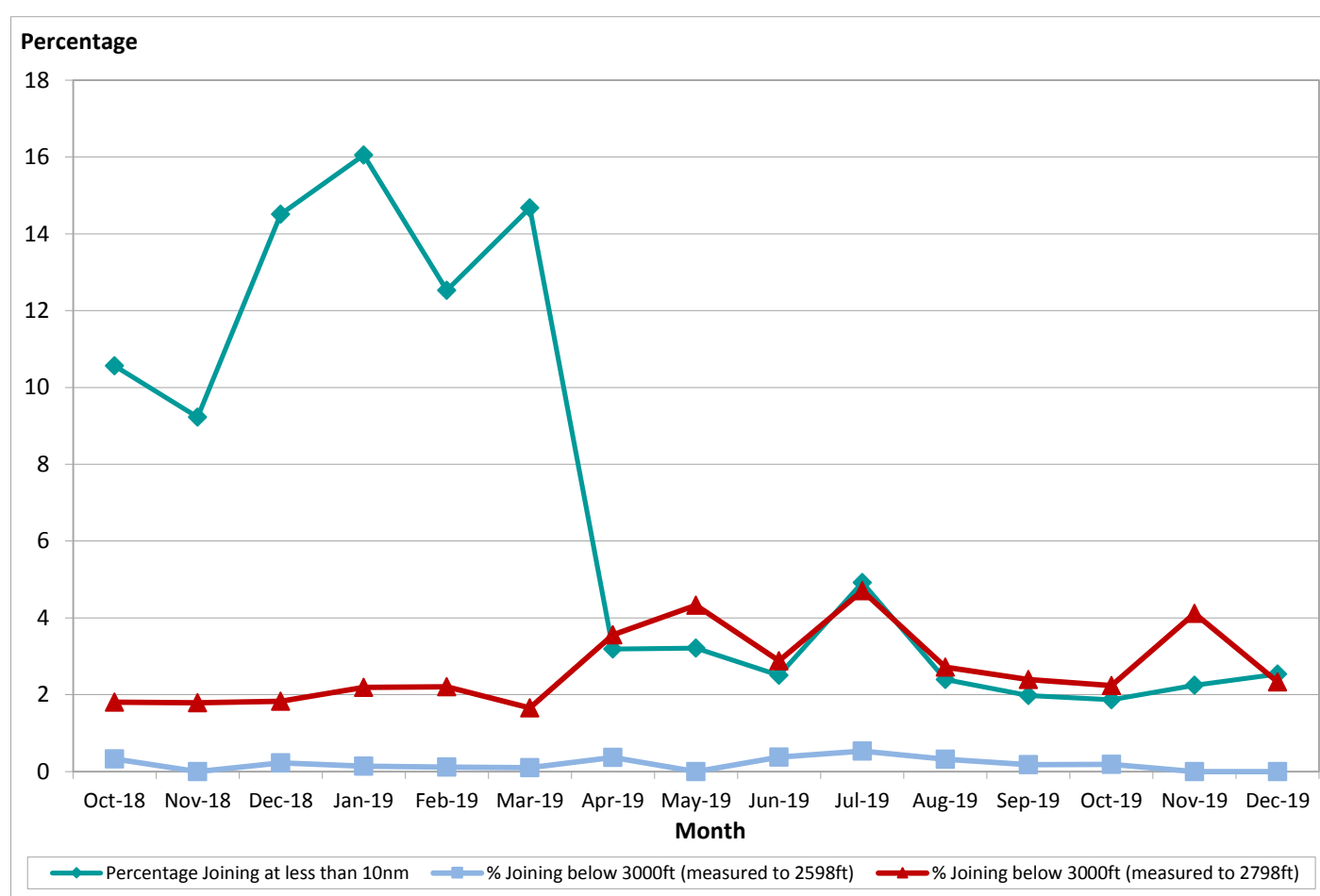
EGKK AD 2.21 (14) Aircraft which land at Gatwick Airport - London between the hours of 2330 (local) and 0600 (local), whether or not making use of the ILS localizer and irrespective of weight or type of approach, shall not join the centre-line:

- a) below 3000ft, or
- b) closer than 10 nm from touchdown.

This aims to keep aircraft higher for longer and avoid overflying areas en route to the ILS below 3,000ft.

During standby runway operations, usually at night during maintenance of the main runway, the threshold is in a different location than the main runway (a different radar map is used for the extended centreline) so the 10 nautical mile (NM) marker is in a slightly different location. As we are complying with 10NM on the standby runway, this may be flagged as a join inside 10NM on the main runway.

THE GRAPH BELOW ILLUSTRATES THE NIGHT TIME JOINING POINTS OVER THE 15 MONTH PERIOD



N.B. 3,000ft (Gatwick QNH) – 202ft (airfield elevation) = 2,798ft on Airports Noise & Track Keeping System

3,000ft (Gatwick QNH) – 202ft (airfield elevation) – 200ft ATC radar tolerance = 2,598ft on Airports Noise & Track Keeping System

Following the implementation of the new NTK system, all of the data analysis processes were re-created. These processes were checked and once confirmed, the resulting data outputs were compared to the previous Casper system. In almost all cases the data was comparable, however, this particular data set (aircraft joining the ILS at less than 10NM

in the night period) does not align with the Casper system over-reporting. It is not possible to explore how Casper calculated this value and as the new process has been independently checked, all analysis presented beyond the 1st April 2019 will use this new process.

Go-Around Statistics 2004 - 2019

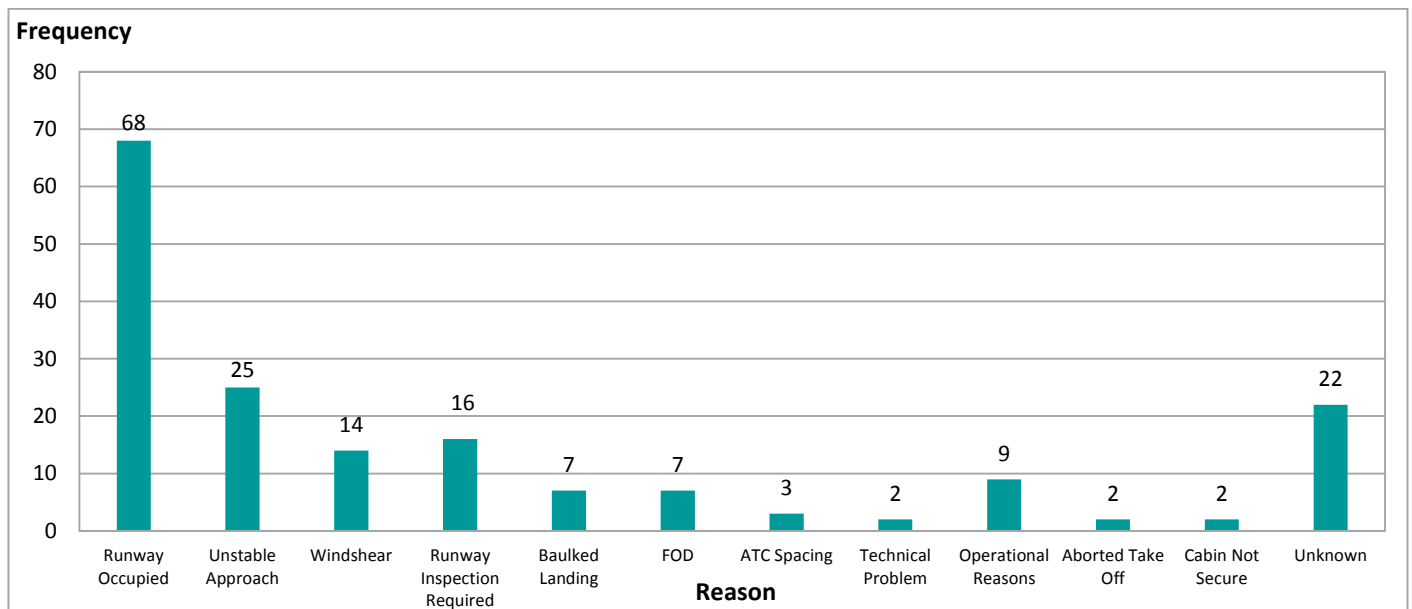
A go-around is a procedure adopted when an arriving aircraft on final approach aborts landing by applying take off power and climbing away from the airport. It is a set procedure to be followed by the flight crew in the event of an aircraft being unable to land. The procedure is published so that ATC and the pilots can anticipate where the aircraft will go following the decision to go-around.

The standard missed approach procedure applicable to Gatwick Airport requires aircraft that are aborting their approach to climb to 3,000ft straight ahead, then, on passing 2,000ft or 1DME (distance measuring equipment) (whichever is later), turn heading 180. This may or may not result in aircraft overflying the town of Crawley or outlying areas.

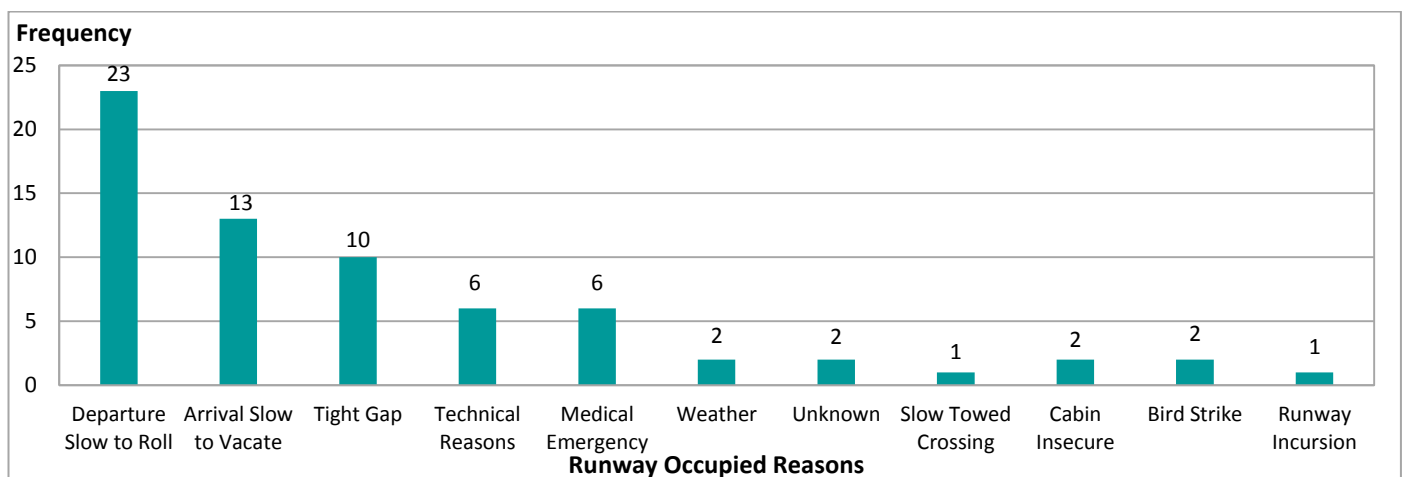
The number and reasons for go-arounds are routinely discussed at FLOPSC meetings and Pilot Forums. All parties are focussed on minimising the number of occasions when a go-around is required, but expect some to occur given the fact that Gatwick is a busy single runway airport.

It should be stated that there are well established standard procedures which both pilots and controllers are trained in and are familiar with. Gatwick Airport Limited, as the airport operator, actively encourages airlines operating at the airport to fly to the best possible environmental standards; however, safety must and always will be the number one priority.

ANS CURRENTLY RECORD GO-AROUNDS UNDER ONE OF THE FOLLOWING CAUSAL FACTORS (OCT - DEC 2019)



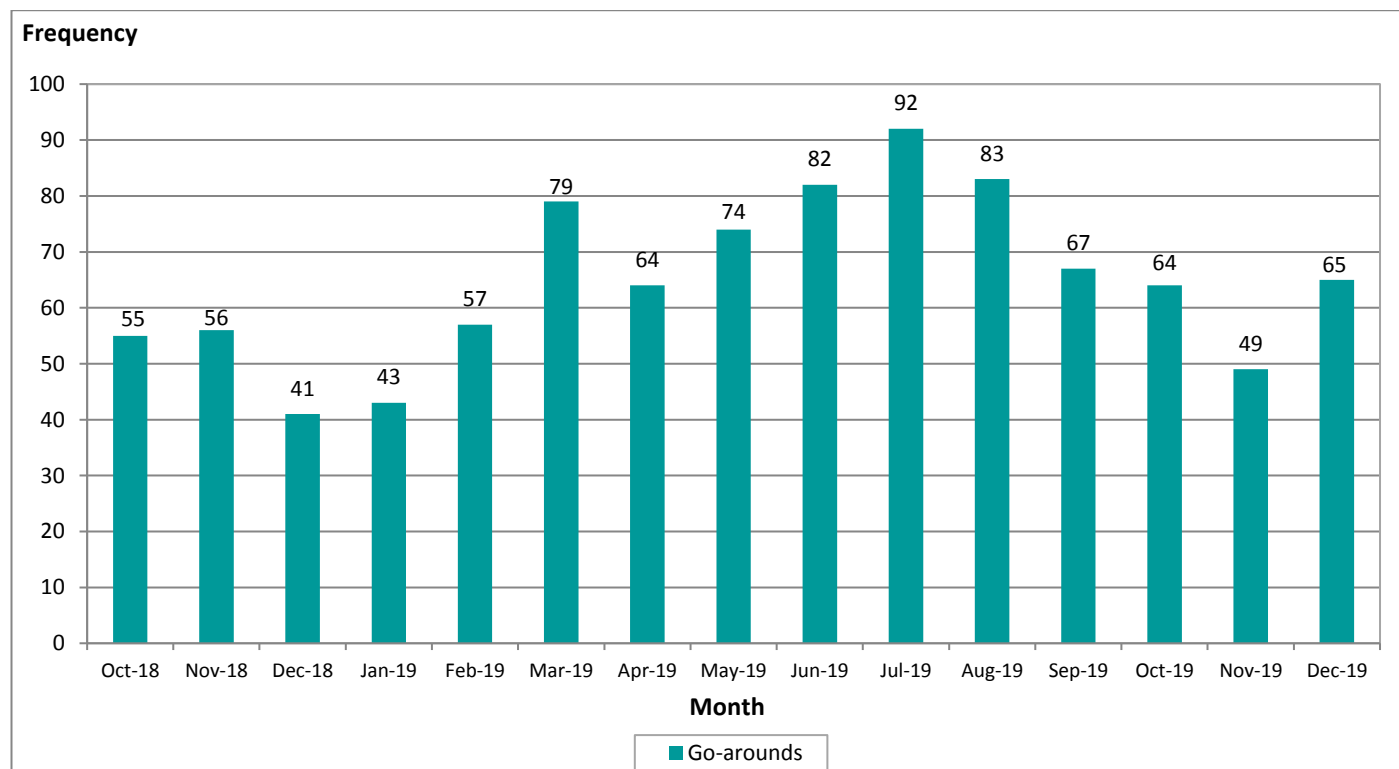
THE REASONS GIVEN BY ANS FOR GO-AROUNDS DUE TO RUNWAY OCCUPANCY DURING THE THREE MONTH PERIOD



THE TABLE BELOW ILLUSTRATES GO-AROUND STATISTICS 2004 – 2019

Year	Total	Total Arrivals	% of Arrivals
2004	344	124665	0.28
2005	450	129509	0.35
2006	405	130954	0.31
2007	434	133271	0.33
2008	359	131858	0.27
2009	455	125861	0.36
2010	364	120263	0.30
2011	386	125541	0.31
2012	520	123408	0.42
2013	473	125290	0.38
2014	512	129966	0.39
2015	520	133869	0.39
2016	642	139998	0.46
2017	618	142956	0.43
2018	699	141950	0.49
2019	819	142384	0.58

THE GRAPH BELOW ILLUSTRATES TOTAL NUMBER OF GO-AROUNDS PER MONTH



Night Flights

The Secretary of State, in exercise of his powers under Section 78 of the Civil Aviation Act 1982, has imposed restrictions at Gatwick Airport on aircraft operating at night. These restrictions are in place to limit and mitigate noise disturbance from aircraft operating at night and to prohibit aircraft of specified descriptions from operating, and also to limit the number of occasions on which other aircraft may take off or land.

The night flying restrictions are divided into summer and winter seasons which coincide with the start and end of British Summer Time. They consist of a movement limit and a quota count system. The quota count (QC) means that points are allocated to different aircraft types according to how noisy they are. The noisier the aircraft type, the higher the points allocated. This provides an incentive for airlines to use quieter aircraft types. Aircraft are certified by ICAO according to the noise they produce and are classified separately for both take-off and landing.

For the purposes of night flying operations, the night quota period is defined as the period between 2330-0600 (local time). In addition, there are two further shoulder periods of 2300–2330 and 0600–0700 (local time), where other restrictions apply to the scheduling and operation of aircraft of specified descriptions.

The current restrictions on night flying came into force in October 2017, to remain in place until 2022 for all the London Airports. At Gatwick, this regime maintained the status quo for movements and QC until the Winter 2018/19 season. This season sees a reduction in the QC limit and a new QC value of 0.125 applied to some aircraft which were classified as QC0. As of October 2017, all aircraft movements have counted towards the night quota limit, including those previously exempt. This

will further incentivise the use of quieter aircraft as an Airport can continue the use of its movement allowance but the average noise produced by an aircraft cannot increase.

Overleaf is a mid-season report for Winter 2019/20 which commenced at 02:00 on 27th October 2019. The total number of movements available for the winter season is 3250.

DISPENSATIONS

In accordance with the DfT guidelines, there may be times when an aircraft can be disregarded from the night flight restrictions. As a general rule these are unforeseen circumstances outside the control of either the Airport or Airline resulting in the unscheduled use of a night slot. Examples of such instances include humanitarian relief flights, emergencies, VIP visits, delays as a result of disruption leading to passenger hardship, ATC disruption or airspace closure caused by a volcanic ash cloud. The rules related to dispensations are strictly adhered to and all instances are reported to the DfT within 7 days.

There have been 70 dispensations applied. The reasons were as follows:

- 44 dispensations were granted due to low visibility problems.
- 26 dispensations were granted due to ATC strike action and computer problems.

QC4, QC8 and QC16 MOVEMENTS

There have been no QC4, QC8 or QC16 movements during either the night quota or shoulder periods. These QC values are not to be scheduled to take off or land between 2300 and 0700. QC4 types may not be scheduled to take off or land during this period.

RESTRICTIONS

Winter	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Movements Limits	3250	3250	3250	3250	3250	3250
Quota Points	2000	2000	1785	1785	1785	1785
Summer	2017	2018	2019	2020	2021	2022
Movements Limits	11200	11200	11200	11200	11200	11200
Quota Points	6200	6200	5150	5150	5150	5150

London Gatwick

AIRPORT MOVEMENTS and QUOTA SUMMARY to WEEK 10 (27 OCTOBER 2019 to 04 JANUARY 2020 inc.)

Season Quota Points Limit 2,000 Season Movement Limit 3,250
Total Quota Points Allowed 2,000 Total Movements Allowed 3,250

Wk No.	Week Ending Date	QC0 No.	QC0.125 No.	QC0.125 Value	QC0.25 No.	QC0.25 Value	QC0.5 No.	QC0.5 Value	QC1 No.	QC1 Value	QC2 No.	QC2 Value	QC4 No.	QC4 Value	Total Quota Value	Mvmts Against Limit	Not Cnt'd Delays	Not Cnt'd Govt	Not Cnt'd Emrgcy	Total Arrls No.	Total Arrls %	Total Deps No.	Total Deps %	Total Rmwy Mvmts
1	02/11/2019	0	8	1.000	41	10.250	42	21.000	17	17.000	3	6.000	0	0.000	55.250	111	0	0	0	100	90.1	11	9.9	111
2	09/11/2019	0	5	0.625	23	5.750	27	13.500	15	15.000	1	2.000	0	0.000	36.875	71	0	0	0	62	87.3	9	12.7	71
3	16/11/2019	0	2	0.250	32	8.000	24	12.000	12	12.000	4	8.000	0	0.000	40.250	74	0	0	0	66	89.2	8	10.8	74
4	23/11/2019	1	4	0.500	23	5.750	23	11.500	8	8.000	2	4.000	0	0.000	29.750	61	0	0	0	58	95.1	3	4.9	61
5	30/11/2019	0	2	0.250	16	4.000	30	15.000	11	11.000	0	0.000	0	0.000	30.250	59	0	0	0	54	91.5	5	8.5	59
6	07/12/2019	0	6	0.750	25	6.250	23	11.500	15	15.000	3	6.000	0	0.000	39.500	72	14	0	0	77	89.5	9	10.5	86
7	14/12/2019	0	12	1.500	40	10.000	25	12.500	12	12.000	3	6.000	0	0.000	42.000	92	12	0	0	99	95.2	5	4.8	104
8	21/12/2019	1	6	0.750	61	15.250	36	18.000	11	11.000	2	4.000	0	0.000	49.000	117	0	0	0	106	90.6	11	9.4	117
9	28/12/2019	0	9	1.125	52	13.000	42	21.000	10	10.000	3	6.000	0	0.000	51.125	116	0	0	0	107	92.2	9	7.8	116
10	04/01/2020	0	5	0.625	40	10.000	37	18.500	13	13.000	3	6.000	0	0.000	48.125	98	44	0	0	127	89.4	15	10.6	142
TOTALS		2	59	7.375	353	88.250	309	154.500	124	124.000	24	48.000	0	0.000	422.125	871	70	0	0	856	91.0	85	9.0	941

Quota Points Available 987.250 Movements Available 2,271
Quota % Points Used 30.0 Movements % Used 27.7

Note 1 Not Cont'd Delays

Note 2 Not Cont'd Gov't

Note 3 Not Cont'd Emrg

Delays likely to lead to serious congestion and delays resulting from widespread disruption of Air Traffic.

Exemptions granted by Gov't (VIP Passengers, Emergency Relief).

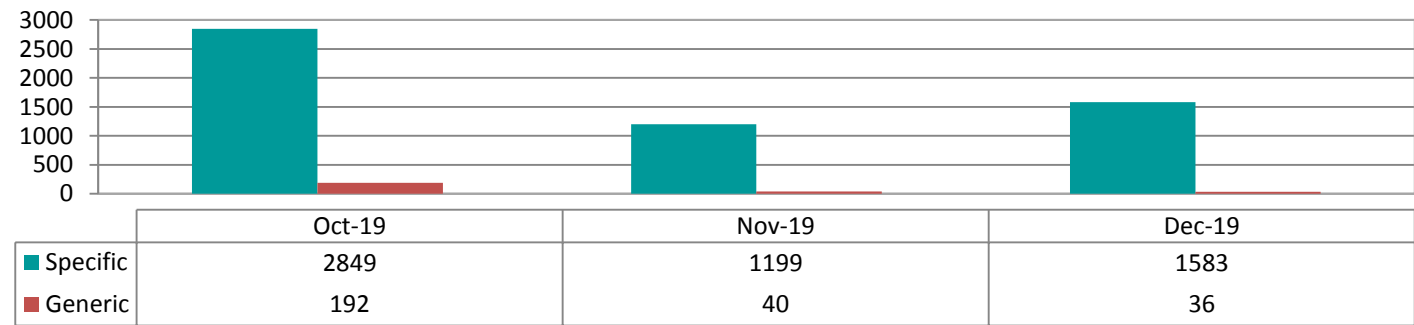
Emergency Take-offs and Landing

Noise Complaints

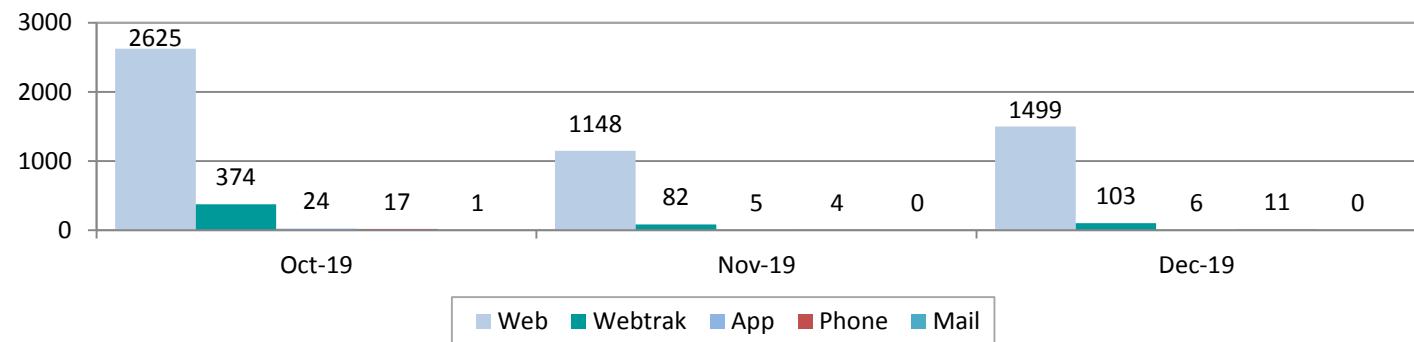
It is important that we understand the issues of noise disturbance from individuals and communities who live around the Airport. By studying the complaints we receive and by communicating with the affected towns and villages surrounding the Airport, we believe that this gives us a greater understanding of the issues related to noise.

This means that we can work together to improve the noise climate around the Airport. The complaints we have received are either about specific aircraft events that cause disturbance or generic complaints about airport operations in general. The following charts provide an analysis of the complaints submission channels.

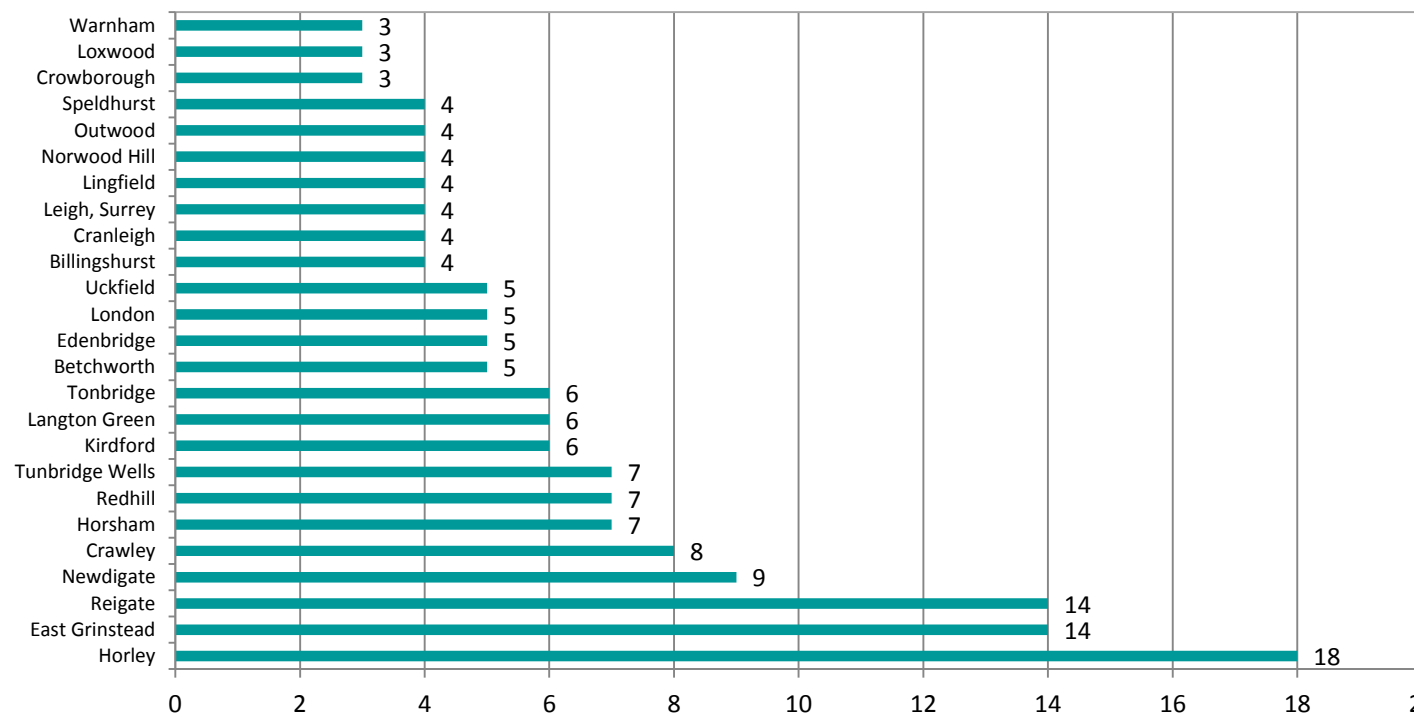
COMPLAINTS RECORDED BY MONTH



METHOD OF COMPLAINT



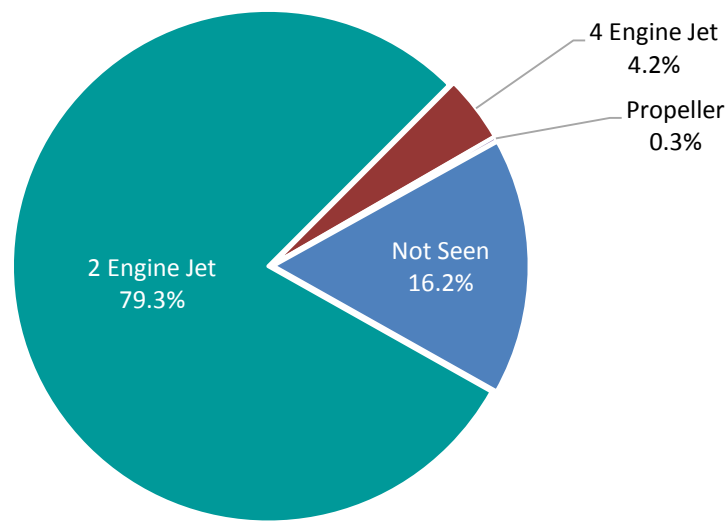
NUMBER OF INDIVIDUAL COMPLAINANTS BY TOWN/VILLAGE



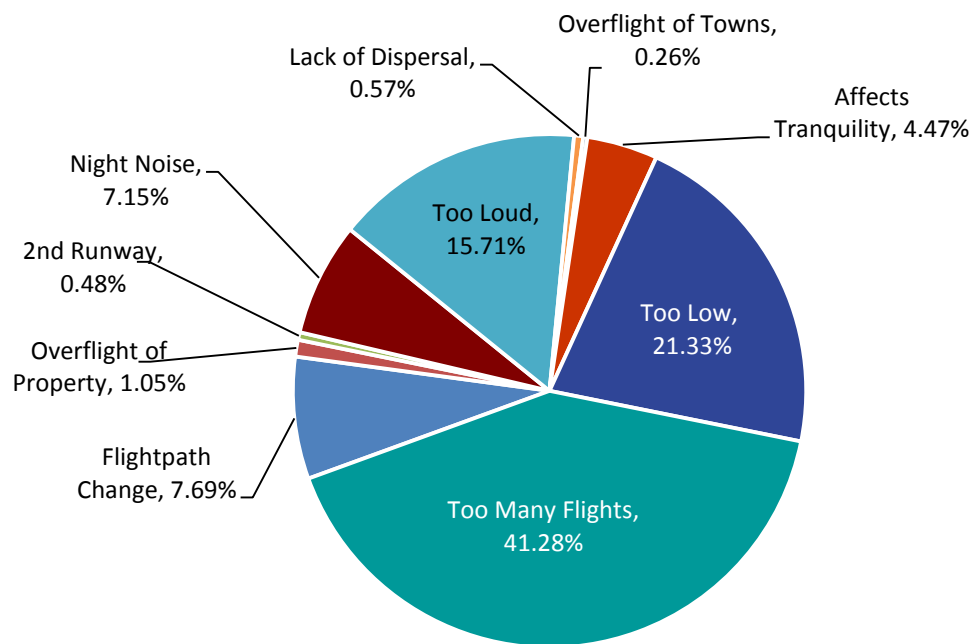
Noise is subjective and can affect people in different ways. Some people can tolerate a certain noise level whilst it can cause disturbance to others.

Below shows the breakdown of the types of aircraft that are being complained about as well as the main reasons for concern.

CATEGORIES OF AIRCRAFT TYPES FROM SPECIFIC COMPLAINTS



PERCENTAGE OF COMPLAINT CONCERNS



Gatwick Airport Airspace Office Quarterly Report covering the period October to December 2019 28



Ground Noise Complaints

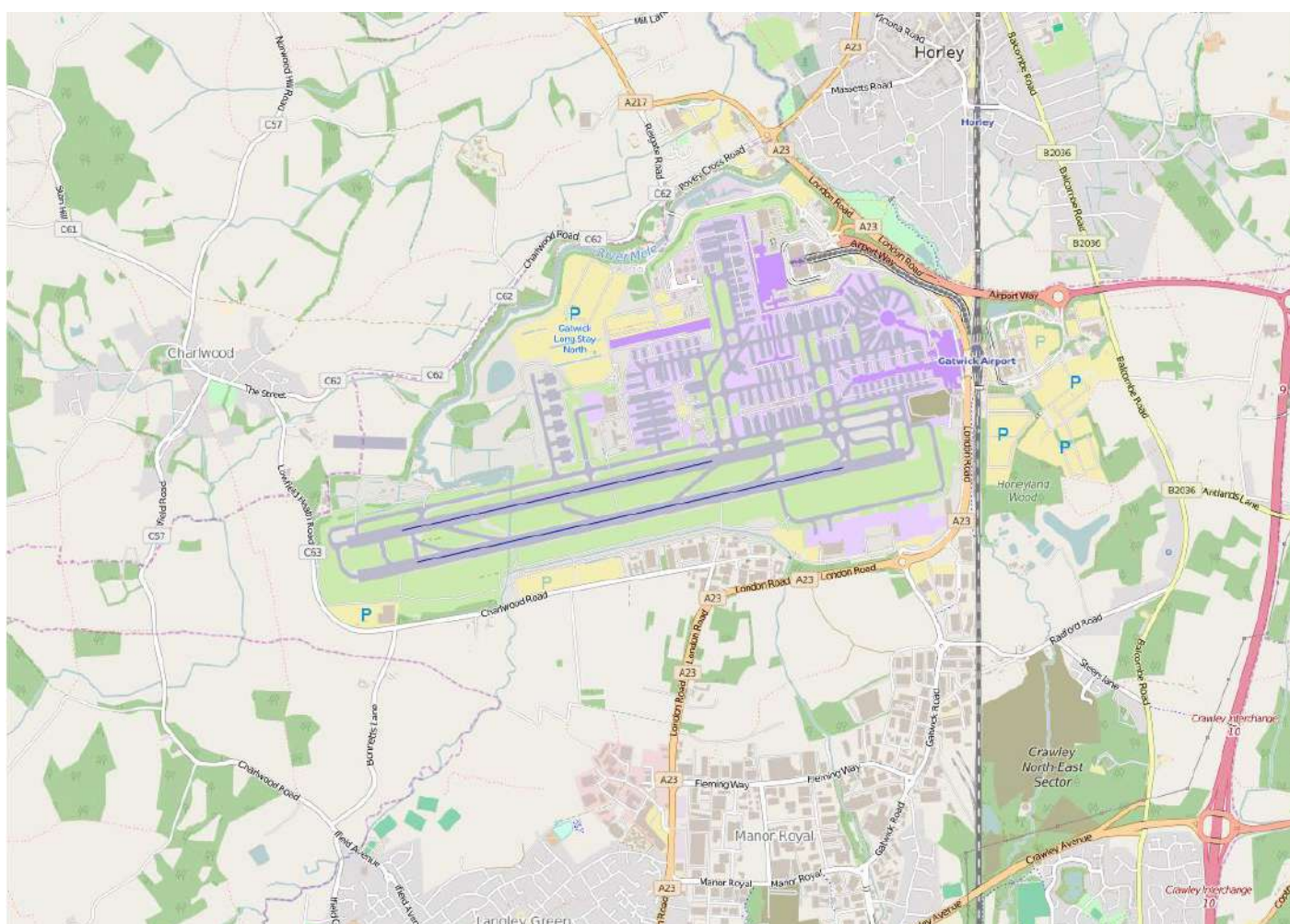
We occasionally receive complaints about disturbance from noise from within the boundary of the airfield. These can be caused by the normal operation of aircraft moving about the airfield, taking off and landing. Additional sources of noise disturbance can be the use of Auxiliary Power Units (APU) by aircraft on stand or the testing of engines following maintenance or repair (engine runs).

Strict regulations exist to minimise this disturbance, which includes a ban on engine running during the night. Details of any ground noise complaints are outlined below.

Comment:

There were no recorded ground noise complaints during this three month period.

THE MAP BELOW ILLUSTRATES THE GATWICK AIRPORT AIRFIELD



For more information visit us at: <http://www.gatwickairport.com/noise>

Glossary

ACoP – Arrivals Code of Practice

AIP – Aeronautical Information Publication

Airspace Office – previously known as the Flight Performance Team (FPT).

AMSL – Above Mean Sea Level

ANS – Air Navigation Solutions

APU – Auxiliary Power Unit - A small auxiliary engine on an aircraft used to provide electrical power when the main engines are shut down.

ATC – Air Traffic Control

CAA – Civil Aviation Authority

CDO – Continuous Descent Operations - A noise abatement procedure for arrivals used to avoid periods of level flight, reducing noise and emissions.

dBA – A-weighted decibels that takes closest account of human hearing. It is used to measure aircraft noise.

DfT – Department for Transport

DME – Distance measuring equipment

EGKK or **LGW** – London Gatwick Airport

FLOPSC – Flight Operations Performance and Safety Committee

Go-Around – A go-around is an aborted landing of an aircraft which is on approach to the runway.

ICAO – International Civil Aviation Organisation

ILS – Instrument Landing System

IMC – Instrument Meteorological Conditions

KPI – Key Performance Indicators

Lmax – Maximum noise level

NATS – National Air Traffic Services

nm – Nautical Miles

NPR – Noise Preferential Route

NTK – Noise and Track Keeping monitoring system. Casper was replaced with ANOMS on 1st April 2019.

P-RNAV – Precision Route Navigation

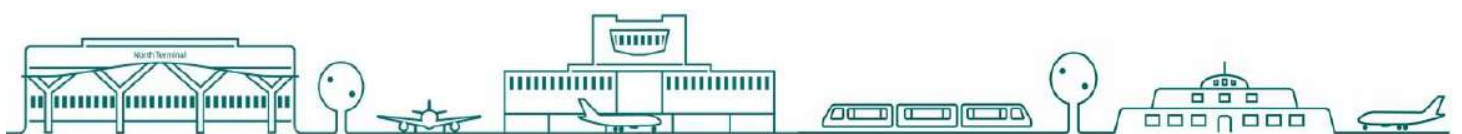
QC – Quota Count

QNH – The barometric pressure at sea level (QFE is the barometric pressure at the Airport).

SID – Standard Instrument Departure - A route out of UK airspace assigned to departing aircraft with an NPR in the first section.

Vectoring – Air Traffic Control procedure turning a departure off an NPR onto a more direct heading.

VMC – Visual Meteorological Conditions



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