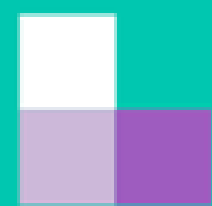
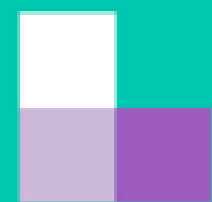


# Community Noise Report

## Kensworth

### Jul-Sept 2016



London  
Luton  
Airport





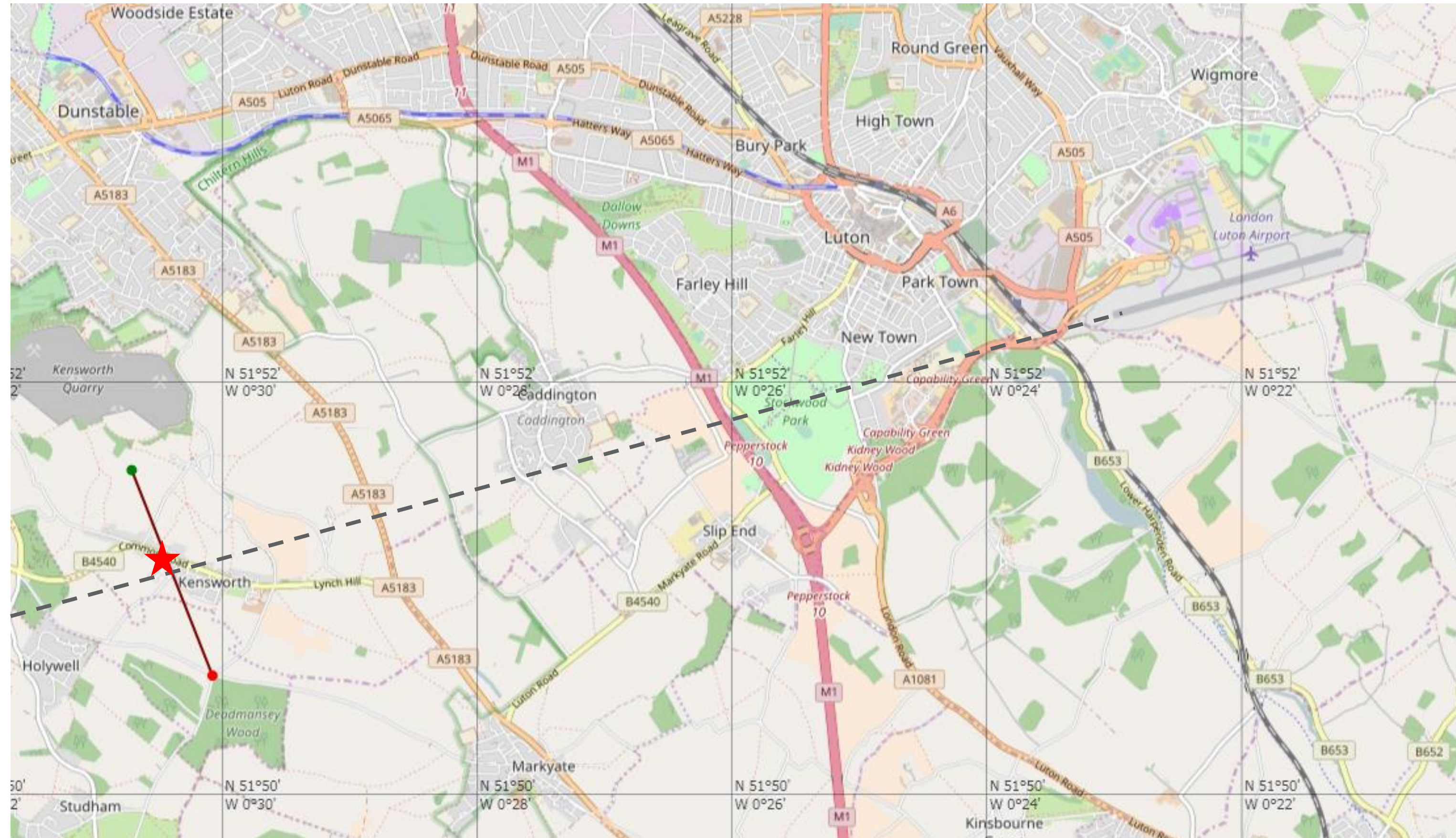
# Introduction

London Luton Airport undertook noise monitoring in Kensworth as part of the ongoing noise monitoring programme. The purpose of the monitoring was to understand the typical noise levels created in this area by aircraft during easterly operations.

The mobile noise monitor was located in Common Road, Kensworth between the 8<sup>th</sup> July to 15<sup>th</sup> September 2016.

The monitor location was directly under the easterly final approach path for runway 08, approximately 9km from the runway. The altitude at the monitor was 190m above sea level.

Aircraft tracks and noise recorded was extracted from LLA's noise and track-keeping system (TopSonic) and concentration/altitude evaluated by drawing a 2km 'gate' perpendicular to the final approach path.



★ - Noise monitor location

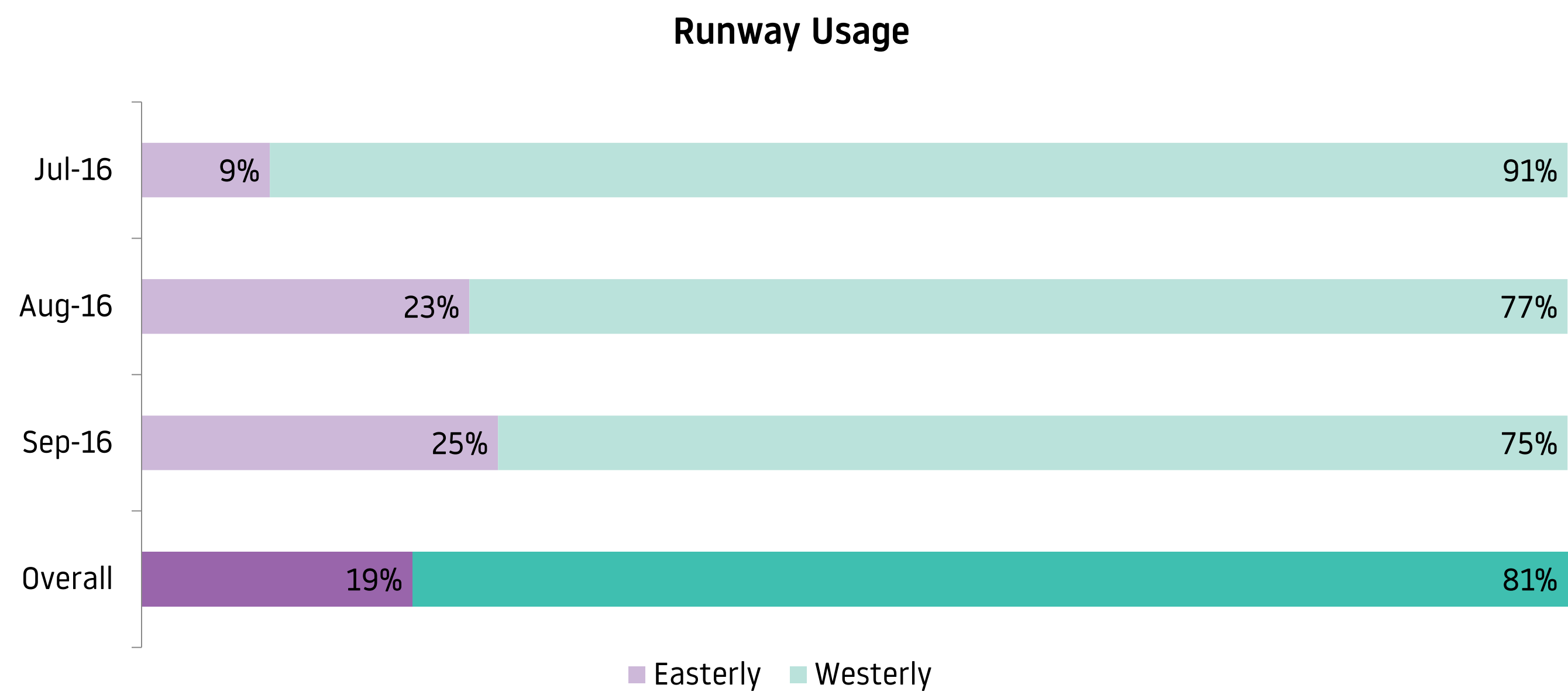


# LLA Operations During the Monitoring

During the monitoring 28,522 air traffic movements were handled by LLA, there were no trials in place that could have affected the position of aircraft during this time.

The Flight Operations team did experience some technical issues with the noise monitor during the monitoring period, however, issues were resolved quickly.

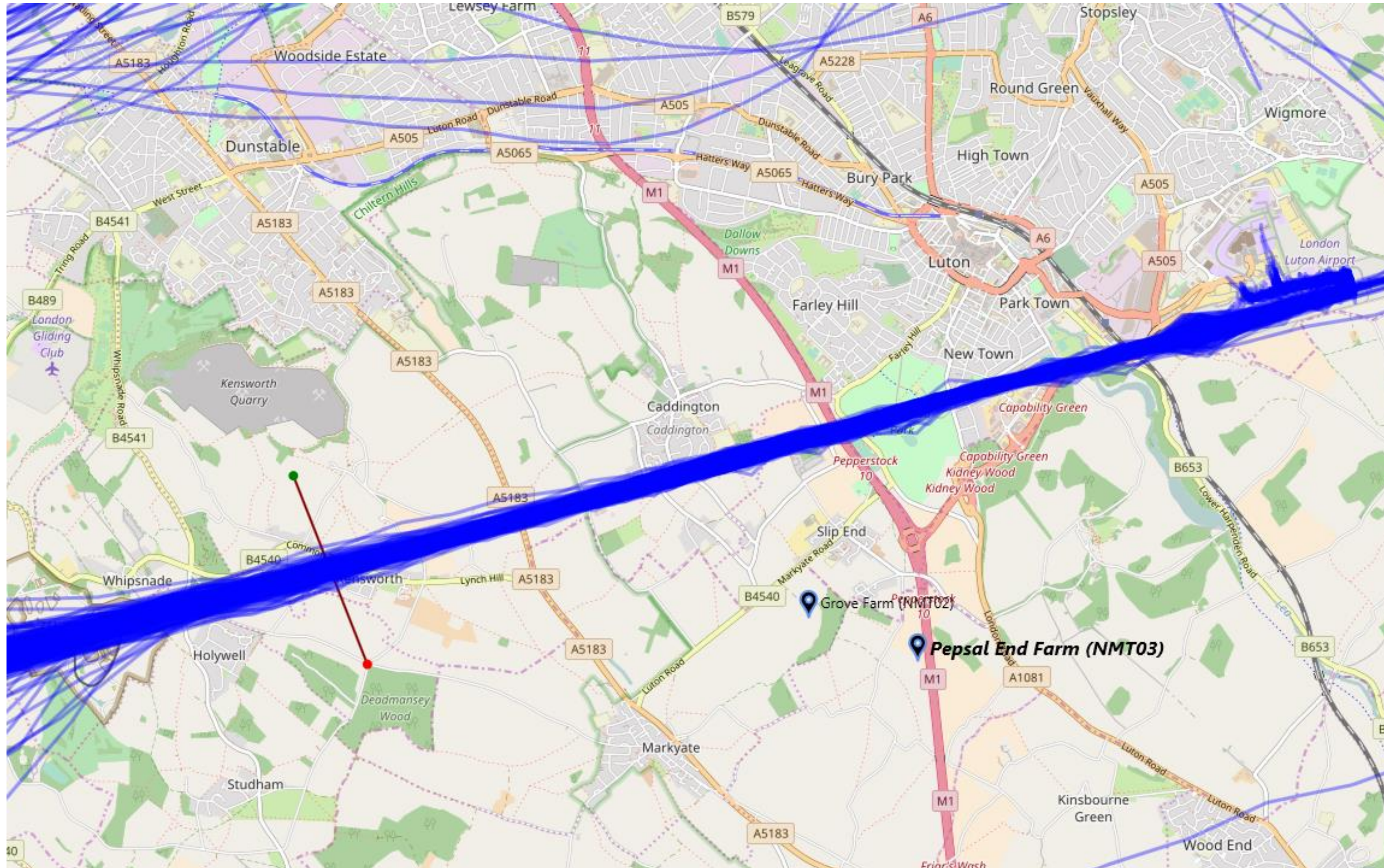
During the period of monitoring the direction of operation was 19% easterly and 81% Westerly and therefore during Westerly operations no data was captured.





# Aircraft Tracks During the Monitoring Period

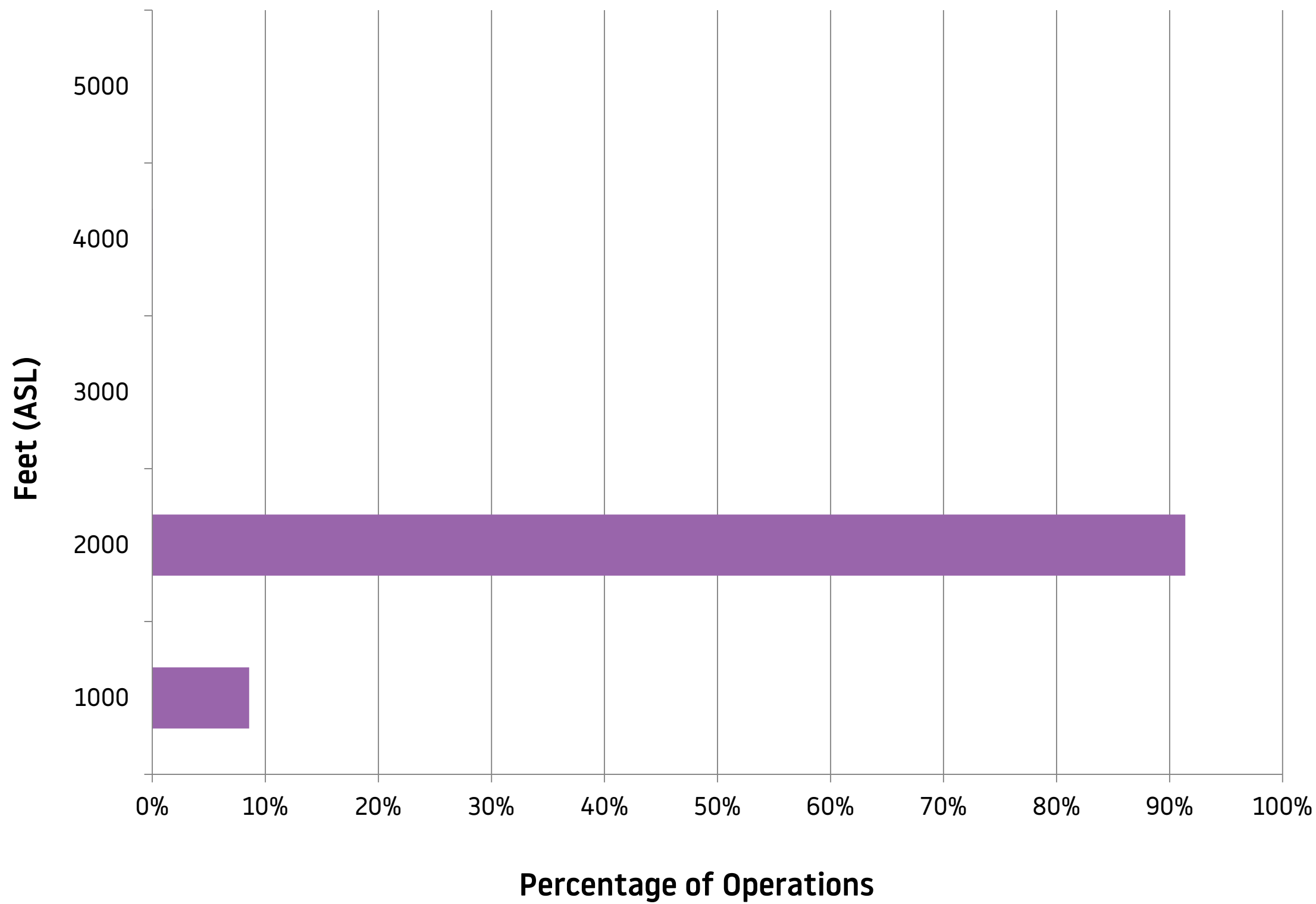
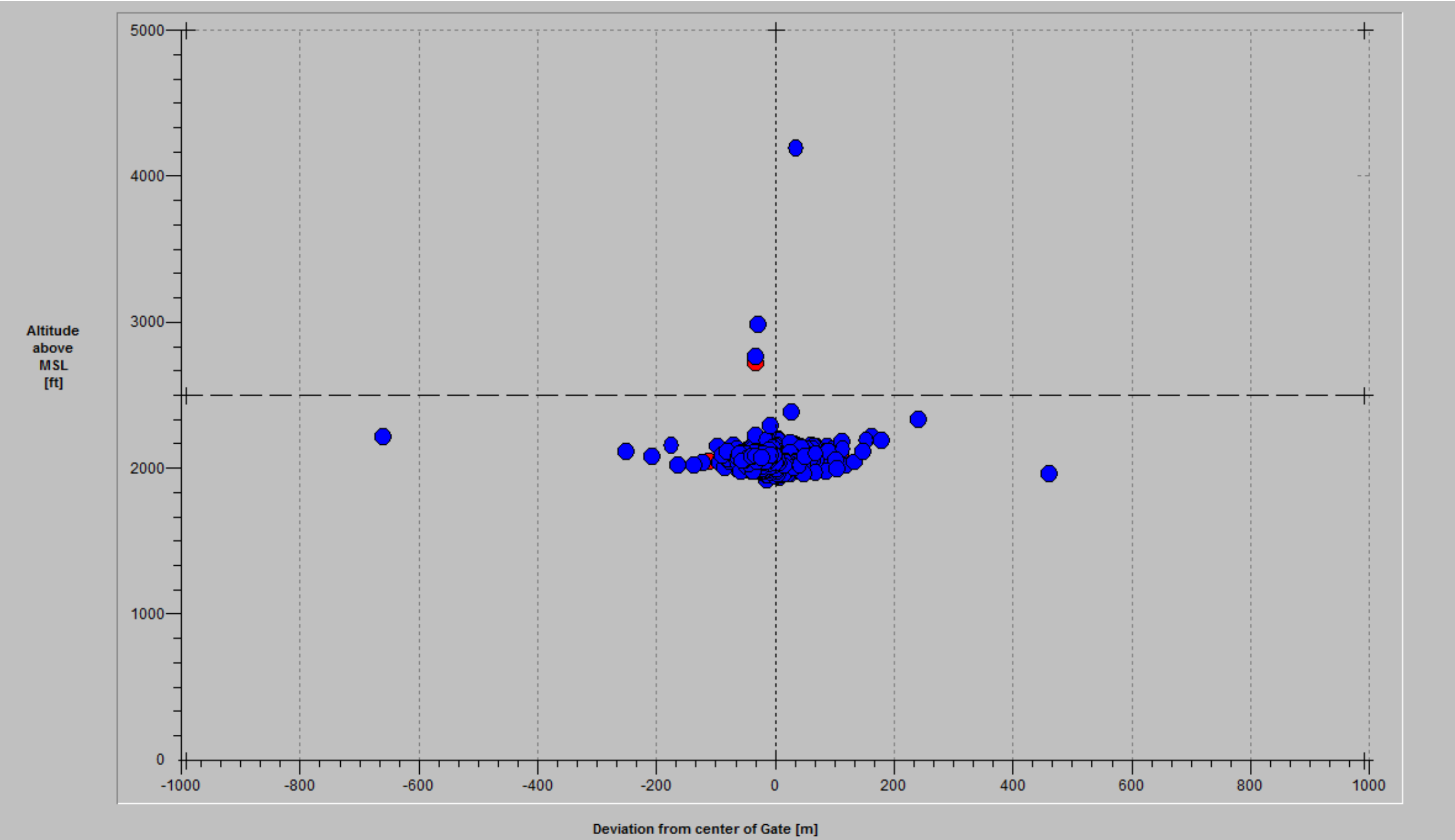
The sample below shows 2,456 number of flight tracks that passed over the monitor during the monitoring period.





# Gate analysis During Monitoring Period

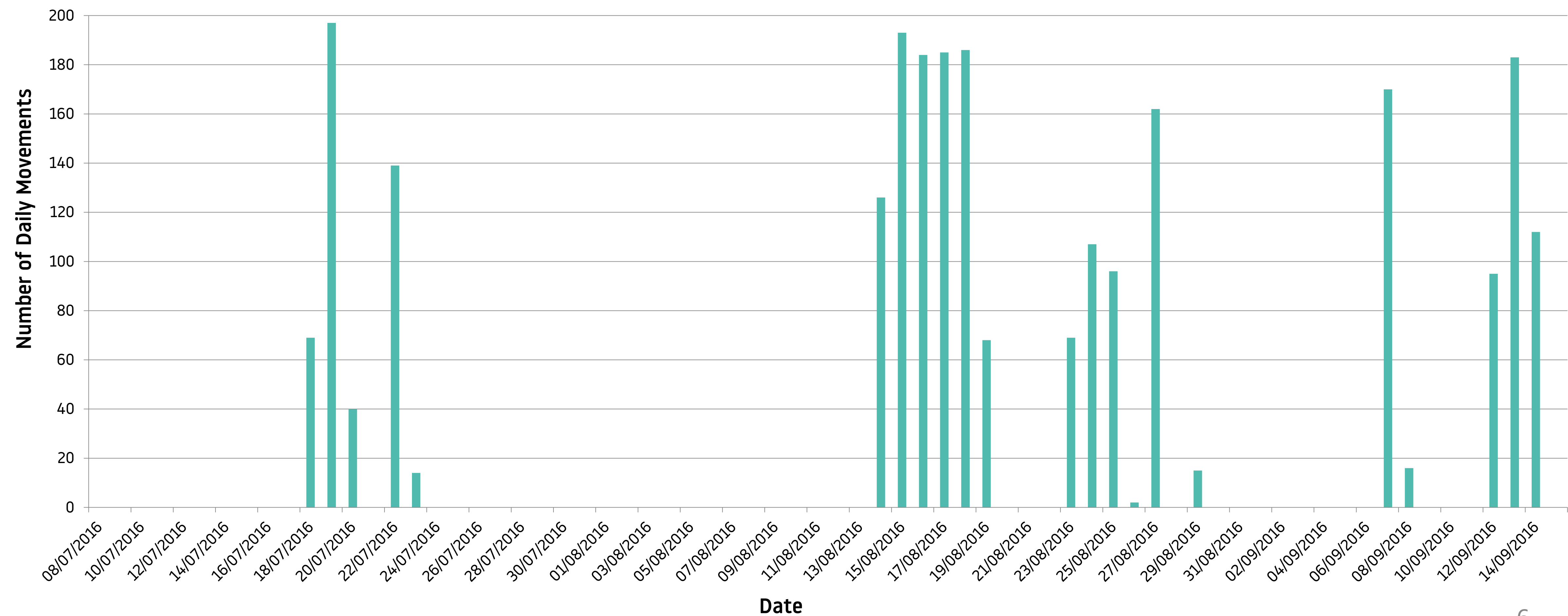
Gate analysis shows the altitude and lateral dispersion of aircraft at this point on the approach path. The chart below shows that 91% of flights were above 1000ft.



2428 aircraft shown on gate analysis

# Daily Movements During Monitoring Period

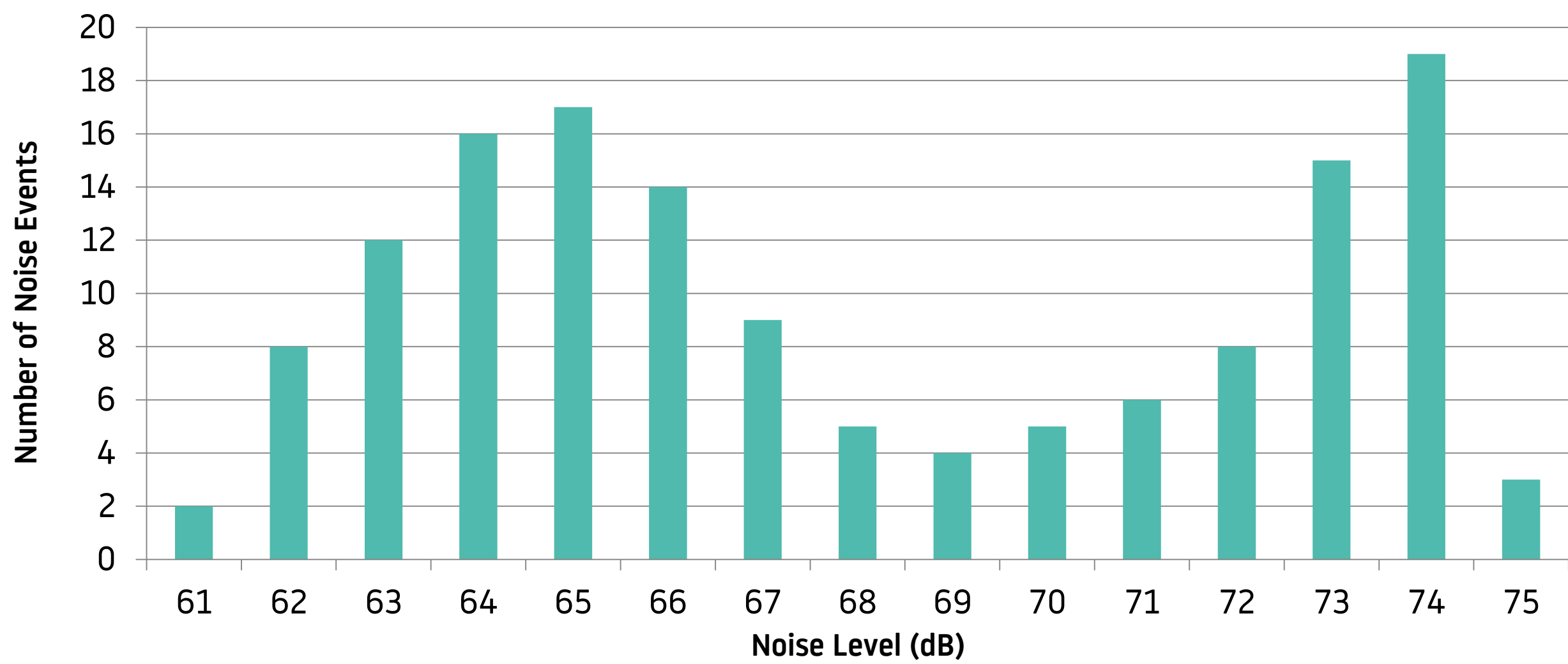
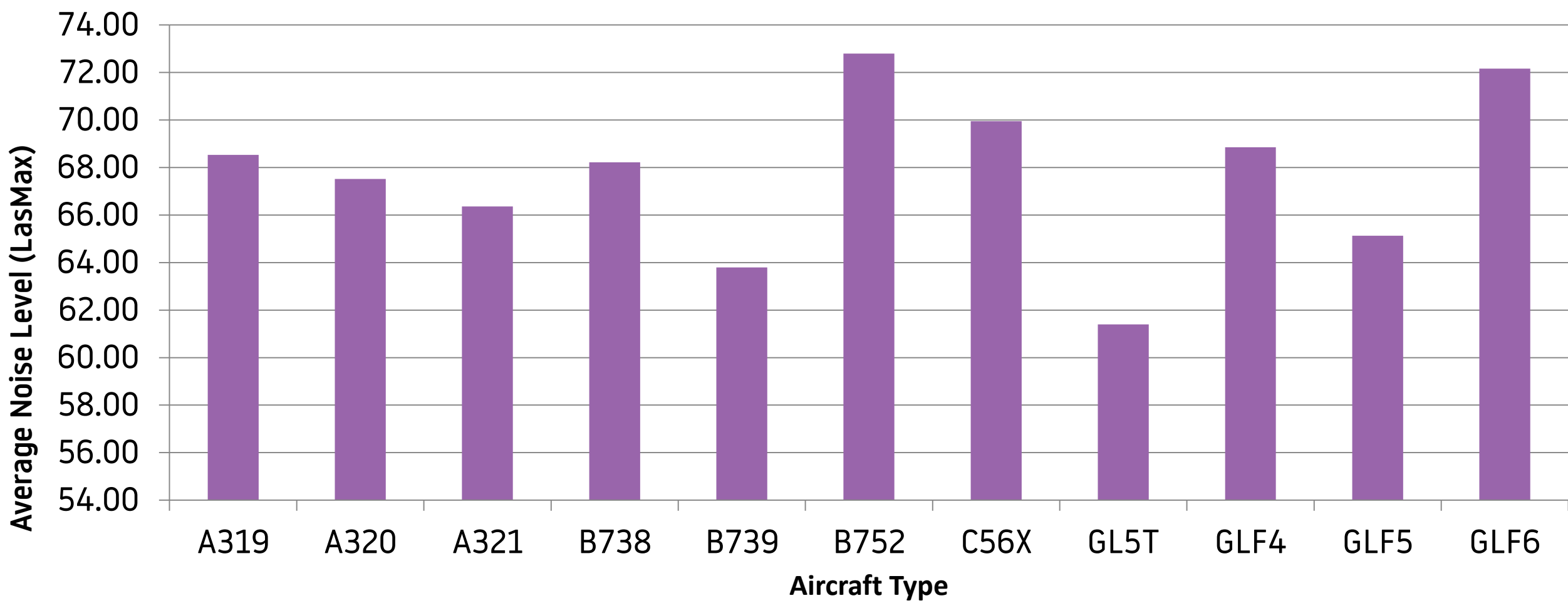
99% of easterly arrivals passed through the ‘gate’ during the monitoring period. The chart below shows the daily number of movements that passed through the ‘gate’ and over Kensworth. During the monitoring period there were 46 days of only westerly operations meaning no flights passed through the gates on these days.



# Noise Results During Monitoring Period

During the monitoring period the 2,428 movements were made up of various aircraft types as shown in the table below.

Aircraft Type	Number of movements
A306	19
A319	523
A320	858
A321	145
B738	328
B734	22
B752	32
C56X	54
GL5T	54
GLF4	33
GLF5	32
GLF6	13
Other Cargo	8
Other Passenger	33
Other Private	274



# Summary

- During the monitoring period, the airport was using easterly operations for only 19% of the time, whereas the annually the average for easterly operations in 30% of the time.
- The average altitude of aircraft in the area is 2000ft above sea level, although the Flight Operations team does appreciate that Kensworth is already 600ft above sea level, therefore aircraft will typically be 1,400ft above the properties in the village.
- The main aircraft types operating at the airport at A320 and A319's therefore the aircraft types overflying Kensworth are in line with this.
- These noise results are consistent with the expected noise for the area, based on the noise contours created annually.
- When comparing these results to the results from Caddington in 2015, the average LasMax shows a lower value in Kensworth, this was expected as the noise increases as the aircraft get closer to the airport.



# Glossary of Terms

**Easterly Operations:** As aircraft take off and landing into the wind, easterly operations refers to the time when the wind is blowing from the east and aircraft follow the arrival routing over Kensworth.

**Aircraft Movement:** A single aircraft departing or arriving at the airport.

**Gate Analysis:** A 2km gate which is drawn across an area and will gather information about every aircraft passing through the gate area.

**Noise Event:** A single event is the period from when an aircraft approaches the monitor until when the aircraft is leaving the area.

**Decibel (dB):** The unit used to measure noise (typically 70dB is equivalent to a vacuum cleaner).

**LasMax:** The maximum noise level from a single aircraft passing over the noise monitor.