



FARNBOROUGH AIRPORT SUSTAINABILITY

Town and Country Planning Act Section 106/299A

Environment Report 2 July to December 2025

Farnborough Airport Ltd
Farnborough
Hampshire
GU14 6XA

1. INTRODUCTION

- 1.1 In compliance with the requirements of the agreement in place under Sections 106 and 299A of the Town and Country Planning Act 1990 between Farnborough Airport (FAL) and Rushmoor Borough Council (RBC), FAL hereby submits a report for July to December 2025, detailing results of environmental monitoring as required by clause 1.3, 2.8a, 2.8b and 3.4.

2. NOISE MONITORING

- 2.1 Two permanent noise monitoring terminals (NMTs) continuously operate at the sites of Tweseldown Racecourse and Farnborough College of Technology, approximately one mile from the airfield and beneath the typical arrival and departure flight path.

The portable NMT is provided for ad-hoc monitoring in connection with suggestions made by the Noise Subgroup Committee (NSC), a subset of the Farnborough Aerodrome Consultative Committee (FACC).

- 2.2 Correlated noise data (dB(A) Leq16) recorded by the fixed NMTs for “Aircraft”, “Community” and “Total” noise is tabulated in Appendix A. These values represent the average noise level over the time of the event or period of interest. It must be remembered that total noise is the addition of community noise and aircraft noise, and is a function of the logarithmic equation whereby:

$$L1 \text{ and } L2 = 10 * \text{LOG}_{10}(10^{(L1/10)} + 10^{(L2/10)})$$

For example:

$$L1 = 57.5$$

$$L2 = 50.5$$

$$10 * \text{LOG}_{10}(10^{(57.5/10)} + 10^{(50.5/10)})$$

$$\text{Total Noise} = 58.3\text{dB}$$

- 2.3 Events have the potential to influence values for “community”, “aircraft” and “total” noise at either location.

The following events took place at the racecourse during the reporting period at Tweseldown Racecourse:

- 5th and 6th of July
- 11th to 12th of October

- 2.4 During the period 18 to 28 July 2025, the DSL cable (non FAL owned) supporting the Tweseldown noise monitor developed an earth fault, resulting in a loss of data. The issue was reported to the DSL provider; in order to reduce reliance on third party infrastructure and improve reliability it was decided to move both permanent monitors to a cellular configuration in August 2025.

- 2.5 At Farnborough College of Technology, we were not advised that a temporary roof would be erected above the noise monitor from July to November 2025 as the College underwent significant roofing upgrades due to the presence of RAAC. Measurements taken at NMT3 during this period are unsuitable for use in noise modelling. Consequently, the appointed noise consultants will use data from January to June 2025 and December 2025 to complete the noise validation required under the S106 agreement.

- 2.6 To reduce the likelihood of similar issues occurring in future, FAL has engaged with the operators of the Noise and Track Keeping System to understand automated processes available. FAL is preparing signage for installation on the noise monitors to direct contractors to contact FAL before undertaking works nearby and establish specific points of contact within the College to ensure we are key stakeholders during any works in these areas. Further information will be provided in the next iteration of the Environment Report and/or the Annual Performance Report.

- 2.7 All three operational NMTs were subject to calibration by an independent specialist on the 6th of March 2025. All data submitted during this period is valid.
- 2.8 Noise contours are produced using the FAA's Integrated Noise Model (INM 7.0d) for the previous year's business movements, together with the predicted contours for the year ahead (2026) will be submitted to RBC in February 2026 in accordance with the requirements of the agreement between FAL and RBC. The modelling exercise results are given below in Table 1, along with those included within the planning agreement. The predicted noise contours were generated using movement data (flight tracks) from the study year, which considers the forecast growth for the year ahead (including predicted helicopter movements).

Table 1: Most recent results of the INM Modelling exercise

dB <small>L_{Aeq,16h}</small>	Control Contours <small>Predicted 20,000 (km²) movements (1997 mix)</small>	Amended Control Contour Areas <small>(km²) as per clause 12.1a of the S106 (29/10/2010)</small>	Actual contour areas 2025 (km²)	Predicted contour areas, 2026 (km²)
55	9.07	6.58	2.23	2.28
60	4.03	2.42	0.95	0.97
65	1.70	N/A	0.45	0.46

- 2.9 Contours relating to actual movements for January to June last year and predicted contours for July to December last year were supplied to RBC in mid-August (2025). Contours relating to actual movements for January to December (2025) last year together with predicted contours for the year ahead will be submitted to RBC in February 2026.
- 2.10 Use of the dB(A) L_{eq16} contour is internationally recognised as a means of noise measurement. A 66 dB(A) L_{eq16} indicates that the average level of noise during a 16-hour day is 66 dB(A).
- 2.11 In accordance with the requirements of the Section 106 Agreement FAL uses INM 7.0d to produce noise contours. This version of the software includes helicopter movements and considers surrounding terrain within the modelling process.
- 2.12 Daily dB(A) L_{eq16} Figures are given in Appendix A.

3. AIRCRAFT MOVEMENTS

- 3.1 Table 2 displays a summary of aircraft movements for the reporting period by movement category.

Table 2: Movements summary by type

Category	Jul	Aug	Sep	Oct	Nov	Dec	Report 2 Total
Business	3,162	2,559	3,030	2,680	2,184	2,030	15,645
Helicopter	92	59	135	79	94	87	546
Subtotal (Reported under planning obligations)	3,254	2,618	3,165	2,759	2,278	2,117	16,191
Military	26	3	-	6	5	1	41
Flying Club	43	50	40	50	42	39	264
Other	37	39	22	38	24	29	189
ADS	-	-	-	-	-	-	-
Total	3,360	2,710	3,227	2,853	2,349	2,186	16,685

- 3.2 Tables 3 and 4 display a summary of movement percentages against the total for each month, by category for weekdays and weekends.

Table 3: Percentage summary by category for weekday movements

	Jul	Aug	Sep	Oct	Nov	Dec
Business	70.5	58.5	72.5	71.3	63.7	67.8
Helicopter	2.6	1.7	3.5	2.5	2.9	3.3
Military	0.7	0.1	-	0.2	0.0	-
Flying Club	1.0	1.2	1.2	1.3	1.5	1.5
Other	0.7	0.8	0.6	1.1	0.6	0.8
ADS	-	-	-	-	-	-
TOTAL	75.6	62.3	77.7	76.4	68.8	73.4

* Totals to the nearest one decimal

Table 4: Percentage summary by category for weekend movements

	Jul	Aug	Sep	Oct	Nov	Dec
Business	23.6	35.9	21.4	22.7	29.3	25.1
Helicopter	0.1	0.5	0.7	0.3	1.1	0.7
Military	0.1	0.0	-	-	0.2	0.0
Flying Club	0.2	0.6	0.1	0.4	0.3	0.3
Other	0.4	0.7	0.1	0.2	0.4	0.5
ADS	-	-	-	-	-	-
TOTAL	24.4	37.7	22.3	23.6	31.2	26.6

* Totals to the nearest one decimal

3.3 Table 5 displays runway use data. Operations are divided into Arrivals, Departures and those undertaken by helicopters without use of the runway (Aerodrome).

Table 5: Runway in use (as percentages) by mode of operation

	Jul	Aug	Sep	Oct	Nov	Dec
06 Arrival	7.8	14.2	11.4	12.2	7.8	11.9
24 Arrival	41.5	35.5	38.1	37.6	41.5	37.2
06 Departure	7.6	13.6	10.9	11.6	6.6	12.8
24 Departure	42.3	35.8	38.4	38.1	42.8	37.5
Aerodrome (Heli)	0.8	0.8	1.2	0.5	1.2	0.6

* Totals to the nearest one decimal

3.4 Table 6 below displays Maximum Take Off Weight data for aircraft operated during the reporting period, reflected as a percentage of the overall movements in each month.

Table 6: Percentage by Maximum Take-Off Weight (MTOW) against monthly movements total

	Jul	Aug	Sep	Oct	Nov	Dec
Over 50t	5.1	3.8	4.5	2.5	2.7	3.4
50t or less	94.9	96.2	95.5	97.5	97.3	96.6

* Totals to the nearest one decimal

3.5 All civil aircraft using Farnborough during the reporting period were compliant with the International Civil Aviation Organisation (ICAO) Chapter 4. All aircraft must provide certification of Noise Chapter prior to permission being granted to operate.

3.6 Helicopters, light aircraft and turbo-prop aircraft are not subject to the requirements of the ICAO noise certification scheme.

4. AIR QUALITY MONITORING

- 4.1 The locations of the thirteen Nitrogen Dioxide diffusion tubes and the two Learian Streetbox monitors remain as previously reported, to see details of the locations of the monitors please refer to previous reports prior to the first quarter of 2005.
- 4.2 Table 7 below displays the standards accepted by the Government and recommended by the expert panel on air quality standards.

Table 7: Objectives included in regulations for purposes of local Air Quality Management

Pollutant	Air Quality Objective		Date to be achieved by and maintained thereafter
	Concentration	Measured as	
NO ₂	200µg/m ³ (105ppb) not to be exceeded more than 18 times a year	1 hour mean	1 st Jan 2010
NO ₂	40µg/m ³ (21ppb)	annual mean	1 st Jan 2010

^a Conversions of ppb and ppm to µg/m³ and mg/m³ at 20°C and 1013mb. ppb = parts per billion, µg/m³ = micrograms per cubic metre. Source: [Air Quality Objectives Update](#) (last updated 03-04-23)

- 4.3 Air quality results consist of raw and manipulated data from diffusion tube laboratory analysis. Raw data from the Learian Streetbox Monitors consists of hourly mean NO₂ concentrations. This data is extensive over a six-month period and so is displayed as a monthly mean. This data is ratified by an external third party.
- 4.4 Passive and active NO₂ monitoring results are detailed in Figures 1 and 2.

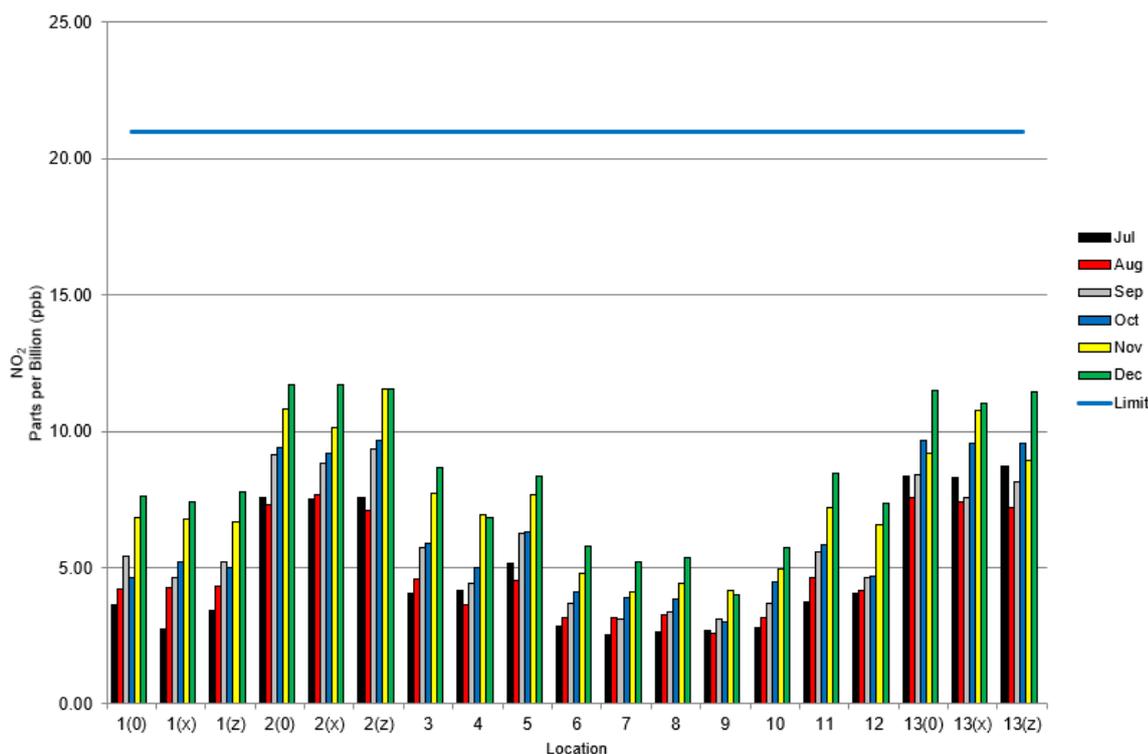


Figure 1: Passive NO₂ monitoring results, July to December

N.B. ppb - parts per billion expressed as a monthly mean. This data has not had a bias adjustment applied

- 4.5 The results taken from the diffusion tubes indicate that NO₂ levels around the airfield and local communities during the reporting period have achieved the objectives within the regulations for the purpose of Air Quality Management. Locations 1-6 and 13 are located outside of the Airport boundary whilst 7-12 are located within the Airport.

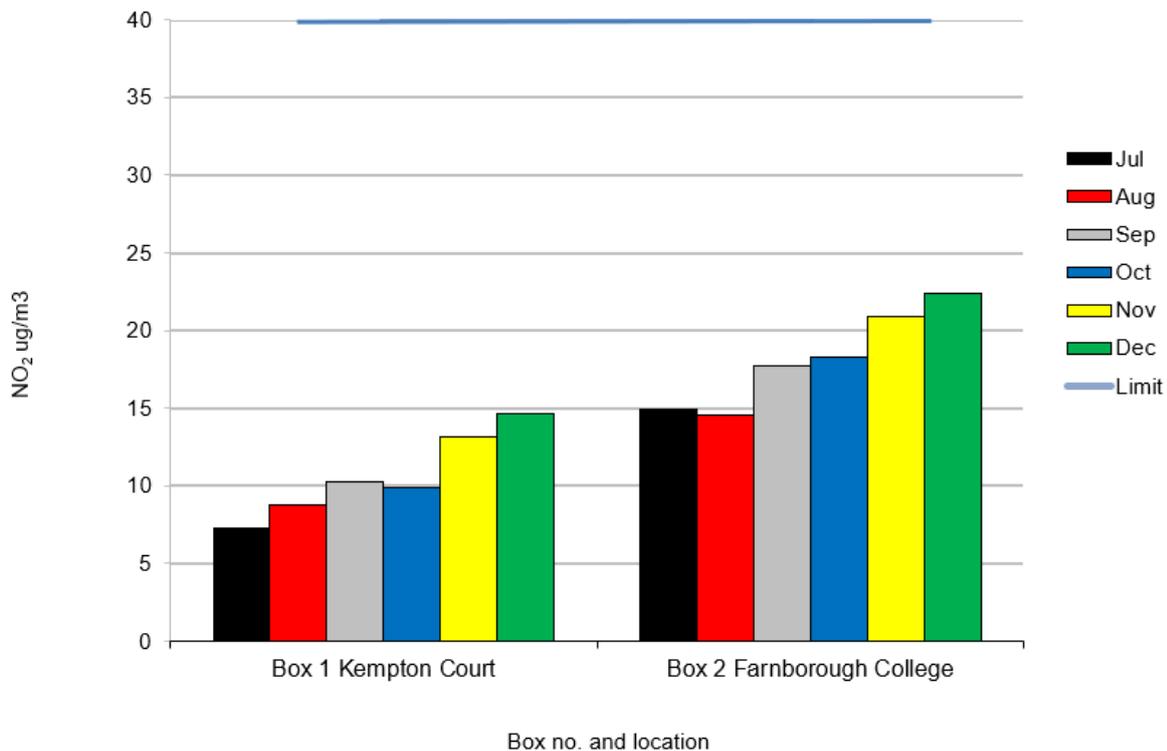


Figure 2: Active NO₂ monitoring results, July to December $\mu\text{g}/\text{m}^3$ expressed as a monthly mean

4.6 Figure 2 displays the data collected from the Learian Streetboxes throughout the study period. Comparisons can be seen in a quiet suburban road with limited vehicular movements compared to that of an area with high volumes of vehicular movements.

5. CONCLUSION

- 5.1 Routine monitoring of compliance with noise abatement routes, air quality targets, and aircraft movements continues at the Airport. To date, all environmental monitoring undertaken has been implemented in accordance with the regulatory requirements and those of the Town and Country Planning Act Section 106 Agreement.
- 5.2 Opportunities for enhanced redundancy of the noise monitors are currently being investigated with the Noise and Track Keeping System, Landowners and RBC. Future mitigation will be confirmed in future iterations of the Environment Report and/or Annual Performance Monitoring Report submitted to RBC in due course.
- 5.3 All movements operated at the Airport are restricted to those permitted by the terms of the planning consent and the accompanying agreement.
- 5.4 NO₂ levels recorded by monitoring stations remain compliant with applicable legislation.
- 5.5 The activities at the Airport remain within the specifications of the Section 106/299A agreement.

ENDS

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Appendix A

