

**Summary of the noise evidence prepared for Appeal by Helioslough Ltd
against the refusal for the development of land in and around the
Former Radlett Aerodrome, Near St Albans**

Appeal Reference APP/B1930/A/07/2045/747/NWF

Reference Number: STRIFE/03 (Summary)



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1 DOCUMENTS

1.1 Core Documents

| | |
|--------|----------------------------------|
| CD/2.3 | Environmental Statement (Part 3) |
| CD/2.4 | Environmental Statement (Part 4) |

1.2 Reference Documents

[RD 1] 2006 No.2238, ENVIRONMENTAL PROTECTION ENGLAND: The Environmental Noise (England) Regulations,

1.3 Abbreviations

| | |
|----------|---|
| A | A weighting of measured noise spectrum |
| C | C weighting of measured noise spectrum |
| dB | Decibel |
| DIRFT | Daventry International Rail Freight Terminal |
| IoA | Institute of Acoustics |
| L_{eq} | Equivalent Constant Noise Level |
| MaxL | Maximum recorded noise level during measurement |
| MaxP | Maximum Sound Pressure Level during measurement |
| SLM | Sound Level Meter |
| SPL | Sound Pressure Level |
| SRFI | Strategic Rail Freight Interchange |

2 INTRODUCTION

This document is a summary of the review of CD/2.3 and CD/2.4 and the results of additional noise measurements that is provided in the document STRIFE/03.

3 PROOF OF NOISE EVIDENCE

3.1 Review of Appellant's Noise Assessment Report [CD/2.3 & CD/2.4]

The Appellant's noise assessment report relies heavily on the use of a non-correlated acoustic model that appears to consistently over predict noise levels. However since there is no formal assessment of the reasons for the over predictions it is concluded that the model is not representative of the existing noise levels.

The use of total noise levels (against the recommendations of the IoA and other knowledgeable bodies) masks the contribution of the different noise sources in the contour plots and hence misses the potential noise hazard of the centralised marshalling yard to the existing development on the former Napsbury Hospital site.

The western perimeter is highlighted as a potential cause for concern. The impact of the marshalling yard on the noise seen by neighbouring properties in Napsbury Park is ignored.

The report does not highlight the proximity of existing dwellings to the SRFI compared to DIRFT. Crick is 1km from DIRFT and at the other side of the M1 motorway and Kilsby is 1.5km from the DIRFT site. The planned SRFI site is less 400m Napsbury and Frogmore. Since noise levels half with the doubling of distance from the source, the site noise levels associated with the operation of the SRFI are going to be a minimum of 6dB higher than those of the DIRFT site. Furthermore, Napsbury does not have the benefit of large warehouse buildings sheltering it from site noise, unlike Frogmore and Park Street.

It is difficult to assess from the description of the acoustic model whether the following effects have been taken into account in the mathematical model.

- Noise from additional road traffic (especially HGVs) sub-regionally arising from the proposed SRFI
- Additional noise from further freight traffic further along the rail line, especially at anti-social hours especially the effect in Radlett, Borehamwood and Elstree faced by the additional freight trains having to operate through the night to avoid path congestion on the MML
- The starting up of diesel trains early in the morning

- The noise from HGVs parking overnight and starting up (often early in the morning) in residential areas in the vicinity of the development site. (Similar to problems that Potters Bar residents have when awoken as buses are started up at 4am at the Metroline Bus Station in the town)

3.2 J&S Noise Measurements

J&S Consulting undertook noise measurements at the DIRFT site in Daventry to assess the difference between day and night noise levels and to measure the roadside noise next to the A428 access road that runs from the M1 to the DIRFT site.

Noise check measurements were also taken day and night at three of the seven locations used in the Appellant's noise survey. The nighttime noise measurements were all taken from first floor windows on properties in Park Street, Frogmore and Napsbury.

The noise check measurements showed that the noise levels reported in the Appellant's noise assessment report are representative of the area, but the predicted noise levels in the Appellant's noise report do not correlate with these data. Explanations for these discrepancies were associated with façade and acoustic barrier effects that would **not** apply to the J&S noise measurements. It can be concluded that the reason for poor correlation between measured and predicted results is a poor acoustic model.

Difference between day and night noise measurements at DIRFT were 3dB, not the 6dB apparent from the noise analysis results provided by Heliosough. This has a significant impact on the sensitive nighttime predictions.

Noise on the access road to DIRFT was 69dBA L_{eq} , 3 dB higher than indicated in the Appellant's predictions. When this is added to the 3 dB difference between day and night operations noted at DIRFT compared to the planned SRFI, their acoustic model would under-predict by at least 6dB in the vicinity of the access road.

3.3 Safety of conclusions drawn in CD/2.3

I have no confidence in the results of the Appellant's noise assessment report. The lack of correlation of the acoustic model with measured data and the use of total noise contours results in a lack of confidence in the conclusions of the Appellant's noise assessment report.

All J&S measurements taken overnight were obtained from open bedroom windows on the first floors of Toll Cottage, The Vicarage and 15 Lovett Road. These noise measurements do not need to be corrected for 6m barriers or façade effect as they are present in the measurement. They undermine the explanations used in CD/2.3 and CD/2.4 to explain the differences between the existing measured noise levels and those predicted by the acoustic model. There is no foundation for the comparison of the two sets of predicted data to assess the impact of the SRFI on existing noise in its vicinity. For all three locations used to collect noise data the change in noise levels between the measured existing noise levels and those predicted for the year 2011 with the SRFI in operation are above 10dBA and would lead to complaints from residents.

The safety of the conclusions is in serious doubt based on the content of their noise assessment report. An independent analysis is required to overcome the limitations of the present report, particularly with respect to the impact of the marshalling yard on the noise levels in Napsbury.

4 RESULTS OF NOISE MEASUREMENTS

Table 4.1 presents the recorded overall results from the noise measurements.

| Measurement | Measured L_{eq} | MaxP | MaxL |
|------------------------|-------------------|-------|--------|
| 1 – Burydell day | 51dBA | 73dBA | 91dBC |
| 2 – Burydell night | 43dBA | 78dBA | 105dBC |
| 3 – Ibis hotel day | 61dBA | 85dBA | 109dBC |
| 4 – Ibis hotel night | 58dBA | 80dBA | 100dBC |
| 5 – A428 day | 69dBA | 81dBA | 103dBC |
| 6 – Toll Cottage day | 46dBA | 80dBA | 105dBC |
| 7 – Toll Cottage night | 38dBA | 67dBA | 82dBC |
| 8 – The Vicarage day | 51dBA | 75dBA | 103dBC |
| 9 – The Vicarage night | 41dBA | 63dBA | 88dBC |
| 10 – Lovett Road day | 50dBA | 72dBA | 101dBC |
| 11- Lovett Road night | 45dBA | 65dBA | 99dBC |
| | | | |

Table 4.1 Summary of the overall results from the noise measurements

Table 3.3.2 compares the J&S measurements with the predicted noise levels contained in CD/2.4 for the year 2011 with the proposed SRFI operating.

| Location | Measured L_{eq} | Predicted L_{eq} with SRFI (2011) | Difference |
|----------------------------|-------------------|-------------------------------------|------------|
| Toll Cottage - Park Street | 38dBA | 54dBA | 16dBA |
| The Vicarage - Frogmore | 41dBA | 57dBA | 16dBA |
| 15 Lovett Road - Napsbury | 45dBA | 58dBA | 13dBA |
| | | | |

Table 4.4.1 Comparison of the measured and predicted noise levels at nighttime for the three J&S measurement points

5 RECOMMENDATIONS

- 5.1 An independent noise analysis of the existing noise environment, verified by test measurements, should be undertaken by a qualified body.

- 5.2 Based on a successfully correlated acoustic model, the noise impact of the SRFI should be assessed to establish the contributions to the noise climate due to the additional noise sources introduced by the SRFI.

- 5.3 A study of the noise impact due to the marshalling yard noise on the Napsbury Park housing development at night should form a critical part of any independent noise analysis. This study should treat the marshalling yard as an industrial site.

- 5.4 A full noise survey, based on the recommendations set out in [RD1] should be carried out to determine the existing climate of the area in and around the old Radlett Airfield.