

South East London - No Respite from aircraft noise

How aircraft from London City and Heathrow airports combine to create community noise blackspots in south east London

Using London SE23 as an example, this paper aims to make clear to policymakers, campaigners and the two airports what the problems for communities are with the introduction of concentrated flight paths (City Airport) and separate development of the two London airport flight paths.

- Noise from arriving London City Airport aircraft combined with departing and arriving Heathrow aircraft blights thousands of south east London homes, with no respite.
- City Airport's low altitude air superhighways, beginning in Feb 2016, have resulted in a perfect storm of aircraft noise for many SE London residents.
- Respite means scheduled relief from aircraft noise for a period of time. There are community noise blackspots in SE London that receive no respite from 6.30am to 10pm nearly every day of the year.



Fig 1. Two flight paths cross, looking west from Forest Hill, London SE23. A low altitude London City Airport- bound plane turns north while a Heathrow plane has just overflowed its path heading northwest. This crossing of flight paths over residential areas and the policy of concentration of flight paths create an aircraft noise blackspot for residents.

Photograph:- Horniman Gardens, London SE23. 09:36, Monday August 16th 2018.

This report has been compiled by Forest Hill, SE23 resident Tim Walker to inform residents, campaigners, policy makers and noise makers.

1. Introduction

- 1.1 We look here at the causes and impact of aircraft noise on residents of South East London, focused particularly on SE23 - Forest Hill, Honor Oak Park and Sydenham, a heavily populated area in the west of Lewisham Borough.
- 1.2 When the west wind blows, this area has been overflown by a proportion of Heathrow arrivals for many years. Noise from these aircraft on about 70% of days of the year begins from before 5am and continues through the day until late in the evening. Around 160 per day pass within a mile radius of Forest Hill station.
- 1.3 In light easterly winds, up to 5 knots, Heathrow continues this routine. But London City airport changes runway direction and directs incoming aircraft on to a concentrated flight path – a kind of air superhighway- where an additional 150 planes overfly the South Circular road at low altitude from east to west. These can be below 1600 feet above sea level, only 1300 feet/400 metres above the ground in Forest Hill's Horniman Museum and Gardens.
- 1.4 The combined effect of both airports on these light easterly wind days is a maximum daily count of over 300 planes over SE23 homes per day. When winds are stronger, the typical daily number is either 150 City arrivals plus 130 Heathrow departures (east wind), or 160 Heathrow arrivals (west wind). There are no days of no aircraft noise – residential respite.
- 1.5 With each nearby flight at 50-75 decibels, sleep is interrupted, conversation beneath has to stop, and enjoyment of local outdoor space and gardens is badly disturbed. Before February 2016, London City planes used to be disbursed over a wider area, but now they fly over exactly the same homes at low altitude with no residential respite.
- 1.6 City Airport and Heathrow Airport make little or no acknowledgement of the combined impact of their two operations, offering different tracking and planning systems which obscure our ability to make sense of how together they are creating a ground level environment with community noise blackspots and no respite.
- 1.7 Using London SE23 as an example, this paper aims to make clear to policymakers and the two airports what has gone wrong through introduction of concentrated flight paths (City Airport) and separate development of the two London airport flight paths. It is time to repair the damage that has been done by taking coordinated action:-
 - ending London City Airport concentrated flight paths or redeveloping them to create fair distribution and coordinated respite for all London residents.
 - compelling City Airport and Heathrow to work together on flight path planning, to prioritise and jointly provide noise reduction and respite to those residents currently taking an unfair burden of their joint aircraft noise.
 - eliminate community noise blackspots where residents endure the noise operations of both airports, sometime simultaneously as in SE23.
 - acknowledge the problem within institutions such as the two airports, Department for Transport, the Civil Aviation Authority, NATS and local authority environmental health departments; ensure they take a much stronger and coordinated planning and regulatory lead to alleviate constant aircraft noise disturbance without residential respite.

2. Summary of key issues

Key issues 1:-

On 30% of days, those with moderate easterly winds of over 5 knots :-

- around 150 arriving London City Airport flights process on a concentrated and exact line over Forest Hill at very low altitude, causing major noise disturbance from 6.30 am.
- Around 133 departing Heathrow planes cause additional noise disturbance climbing south of Forest Hill.
- The combined effect is 150 City flights and 133 Heathrow flights- around 300 total flights per day.

Key issues 2:-

On 70% of days, those with westerly winds:-

- loud and large jet Heathrow arrivals overfly Sydenham, Forest Hill and Honor Oak Park from 3000 ft creating major noise disturbance from 5am. On these days, around 160 planes have significant noise impact on Forest Hill.

Key issues 3:-

In light easterly winds things are even worse:-

- City and Heathrow change their operational directions at different wind speeds. In light easterly winds under 5 knots, both Heathrow and City arrivals fly over SE23 at different heights at the same time, from 5am to 11.30 at night.
- The combined affect is 150 City flights and 160 Heathrow, giving over 300 total flights per day.
- **SE23 is a community aircraft noise blackspot - there is no residential respite in this area.**

Key issues 4:-

- City Airport's arrivals air superhighway create a relentless low altitude procession, on a very accurate line, creating noise misery about 150 times a day for the same homes day after day.

Key issues 5

- Arriving aircraft from City at as little as 1600ft are noisy and disturb everyday activities. Those from Heathrow at 3-5000 feet are larger and have a similar decibel level – 55-75 decibels is typical. The combination is a blight on residents who have had air superhighways imposed on them despite living many miles away from the airports.
- City Airport seems unconcerned. They are consulting on their Noise Management Plan for 2018-23, but there is nothing to say they plan to address the huge number of complaints received, or the issues set out here, which they created by introducing a concentrated flight path - their aircraft superhighway.

Key Issues 6

- Campaign Groups led by HACAN, HACAN East, Plane Hell Action Southeast, AirportWatch and others have been doing their best to make the case for what has gone wrong, including by dialogue with responsible bodies and by encouraging individuals to lobby those with influence – particularly the Department for Transport, CAA, NATS, and elected representatives – London Mayor, London Assembly, Borough Councils.
- But to date, concentrated flight paths remain unaffected, and City Airport expansion plans march on. Which of these bodies will take responsibility for residential aircraft respite and the failing policy of concentrated flight paths?

3. Summary conclusions

- 3.1 The accumulated noise levels of flights over SE23 are too high; they interrupt sleep, leisure and work alike to an unacceptable and avoidable level.
- 3.2 The frequency of flights over SE23 is too high. Both City and Heathrow contribute. They need to cooperate and create joint residential respite planning to avoid clashes of their routes and their differing runway policies from creating community noise blackspots.
- 3.3 The City flights are too low. As little as 1300 feet/400metres above ground level is far too low for aircraft over residential areas nearly 15 miles flight distance from the airport. They could fly at least 1000 ft higher for much longer before their final approach.
- 3.4 The Heathrow flights are also too low. They could fly at least 1000ft higher for much longer on their approach, creating more space underneath for City aircraft, on concentrated flight paths or not, to fly higher for longer.
- 3.5 City's concentrated flight paths – the aircraft superhighway- has created a miserable experience on the ground for the same residents day after day. It should be ended and flights dispersed over a wide geographical area until a far better plan has been developed, consulted on and agreed.
- 3.6 The Department for Transport, Ministers, Civil Aviation Authority, NATS, Mayor of London, London Assembly and Borough Councils should offer ownership and leadership of residential respite, accountable to residents and their representatives, not just to airports, airlines and big business.

South East London - No Respite from aircraft noise – the evidence

Key issues 1

On 30% of days, those with moderate easterly winds of over 5 knots :-

- around 150 arriving London City Airport flights process on a concentrated and exact line over Forest Hill at very low altitude, causing major noise disturbance from 6.30 am.*
- Around 133 departing Heathrow planes cause additional noise disturbance climbing south of Forest Hill.*
- The combined effect is 150 City flights and 133 Heathrow flights- around 300 total flights per day.*

- 4.1 When the wind is at over 5 knots from the east, both Heathrow and London City Airport airports land their aircraft from the west and take off to the east, into the wind. This happens for 30% of days in the year.
- 4.2 Fig 2 shows Heathrow easterly wind operations. Forest Hill, SE23 is hardly affected by the Biggin stack system east of Croydon for landings (red), but experiences a share of the takeoffs (green) which fly in a widening funnel Heathrow-Wimbledon-Swanley and beyond.

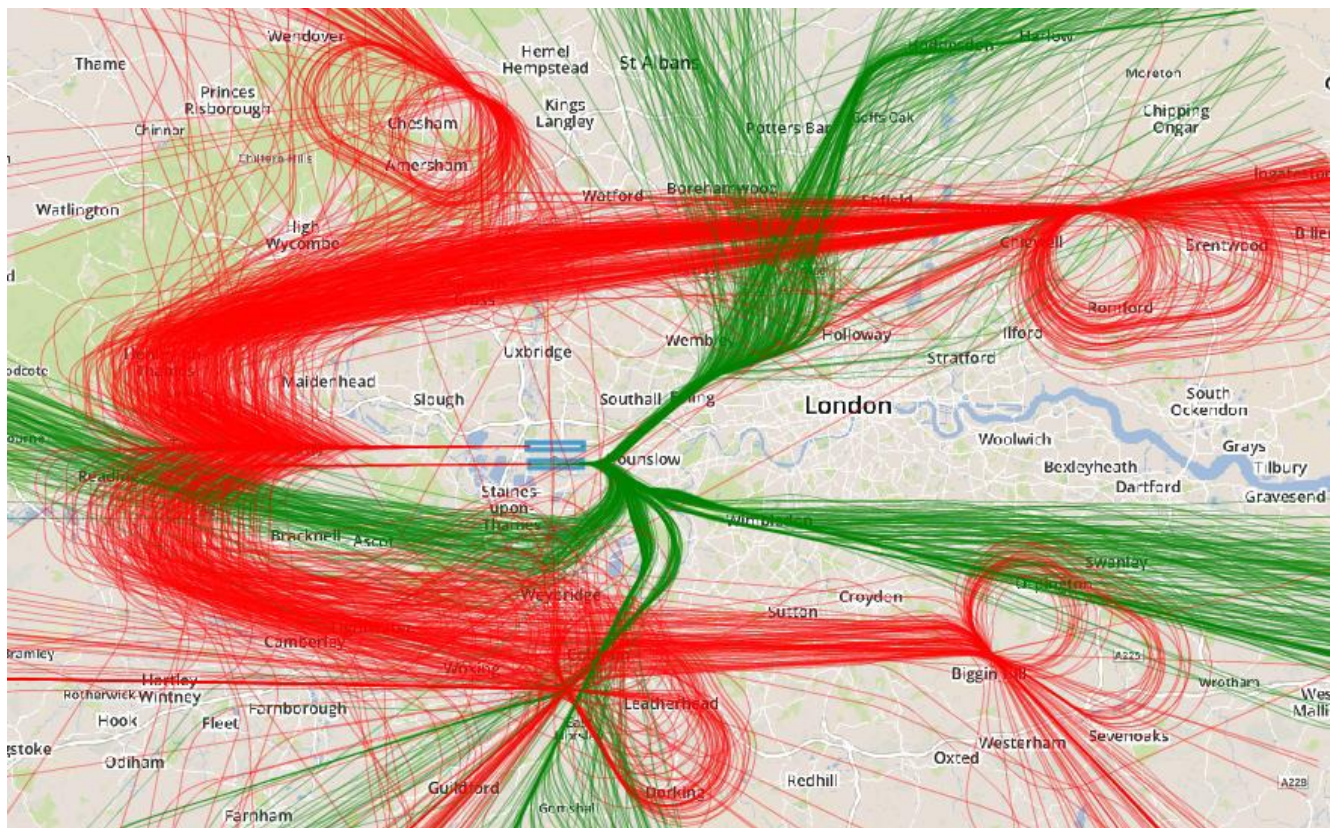


Fig 2. Heathrow departure, in green, fly just south of Forest Hill, close enough to be seen and heard.

Heathrow heights and frequencies – easterly operations

- 4.3 Heathrow's Webtrak tool allows tracking of these departing Heathrow aircraft over a map of the area. Many of these aircraft will be visible and create noise for Forest Hill and Sydenham. Fig 3 shows a typical one, going over Crystal Palace Park at 5774 feet. Departing flights are climbing hence are relatively noisy. Even at around 5000 feet or more. Heathrow planes will also, in general, be large and relatively noisy.

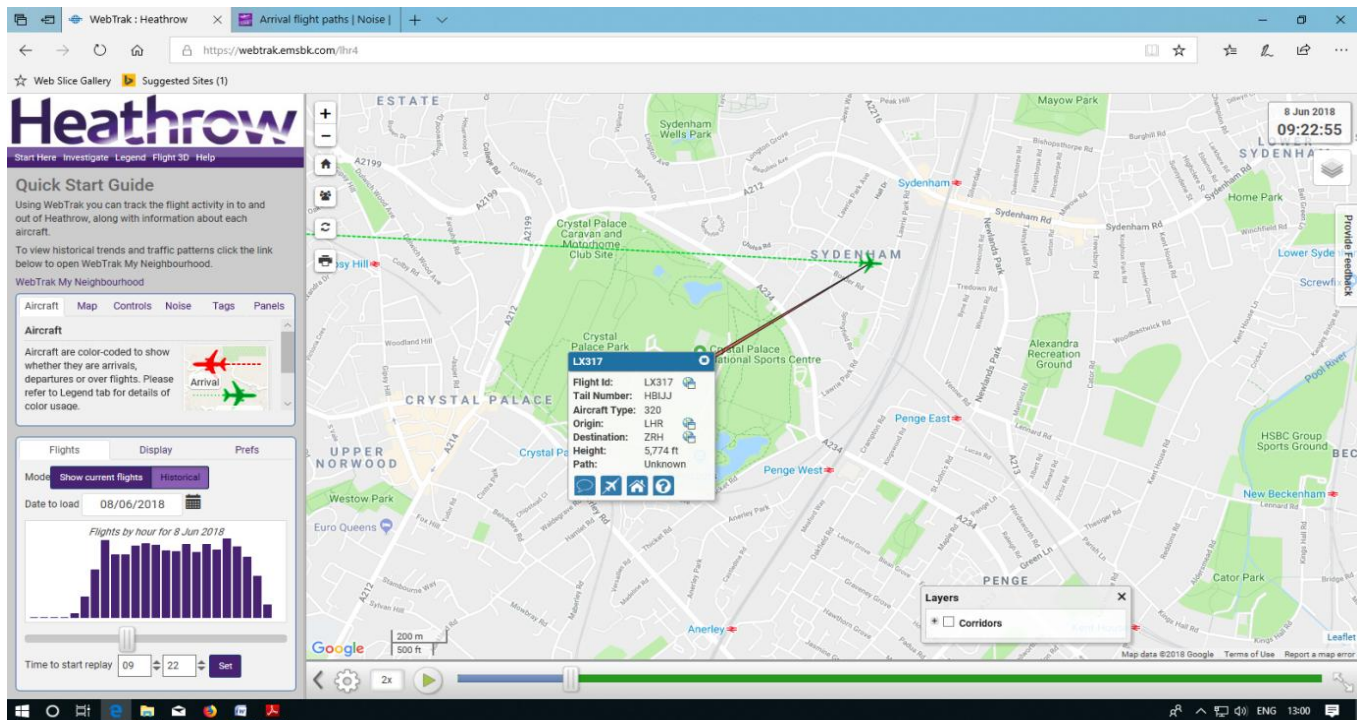


Fig 3. Large numbers of Heathrow departures fly eastwards just to the south of Forest Hill, SE23

- 4.4 Using Webtrak to follow operations, the majority – about 10 per hour- followed a route towards Crystal Palace Park, then heading to the south of Bromley. These planes can be clearly seen and heard in Forest Hill.
- 4.5 In a typical easterly operations week in early July, taking Forest Hill station as our centre, an average of 133 departing Heathrow aircraft per day passed within a 1.5 mile radius in the concentrated pattern shown in Fig 4. On 3rd July the first passed Forest Hill at 06:24, the last at 23:23.

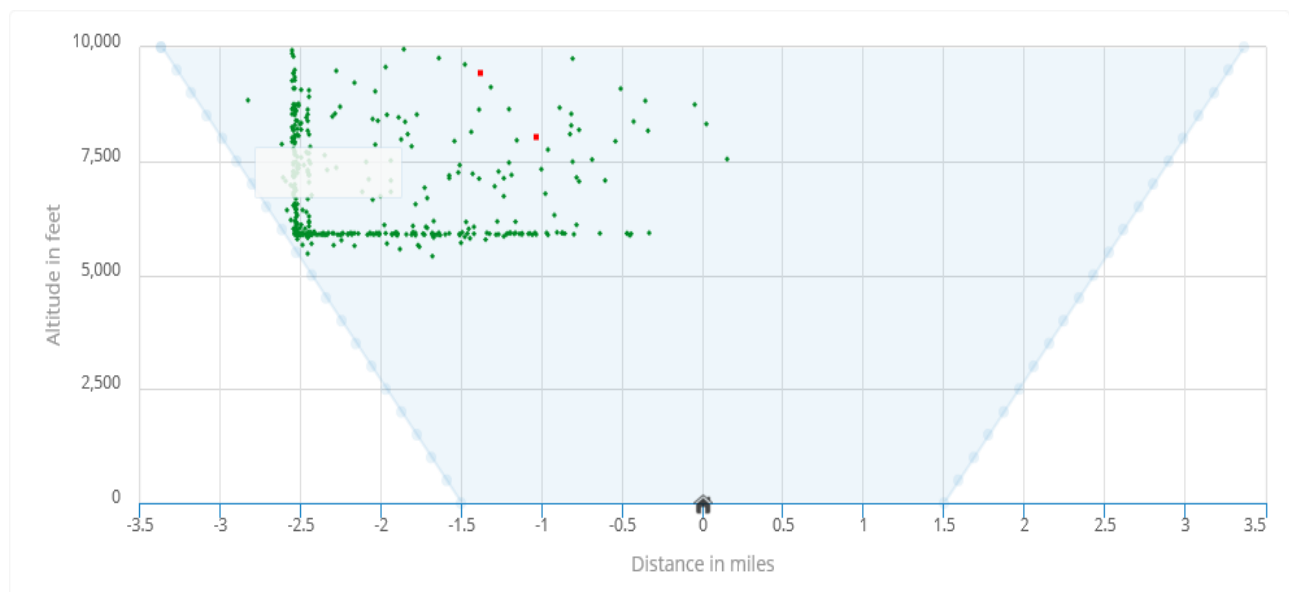


Fig 4. Heathrow departures follow a concentrated pattern (Source:- Xplane Heathrow)

Key issues 2:-

On 70% of days, those with westerly winds:-

- loud and large jet Heathrow arrivals overfly Sydenham, Forest Hill and Honor Oak Park from 3000 ft creating major noise disturbance from 5am. On these days, around 160 planes have significant noise impact on Forest Hill.

5.1 Winds are westerly on 70% of days, and red paths show arriving aircraft to Heathrow turning over Forest Hill and Honor Oak Park from 5am. These planes are noisy enough to wake residents in the morning, and halt conversation when outside. They do not, at present, follow a concentrated flight path as they arrive in a slightly dispersed manner from the two stacks to the SE and SW of us. Heathrow seems to be far more advanced than City in being aware of the growing demand for noise respite, and have commissioned research into how best to manage residential respite – but only for their own airport's flights.

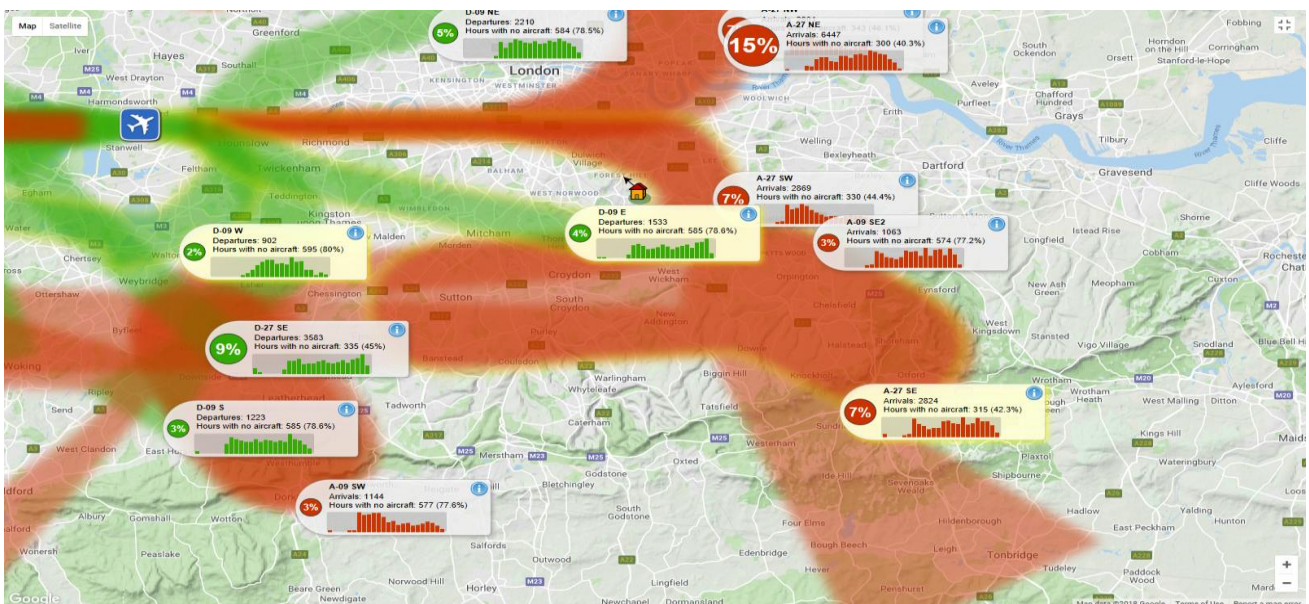


Fig 5. Arrivals, in red, arrive from stacks to the South West and South East to turn over Forest Hill and Honor Oak Park towards Heathrow.

5.2 Taking Forest Hill rail station (SE23 3HB) as our centre, on a typical day, 23 July 2018, 156 Heathrow arrivals overflow the area, over half of them classed as Heavy or Super Heavy aircraft, at heights mostly between 3500 and 5000 feet. Decibel levels vary, but 70-75 dB is not untypical for a flight going overhead.

The funnel below of 156 arriving aircraft at varying altitudes takes a 1 mile circle with Forest Hill station, close to Horniman Gardens, at its centre. (Source:- Xplane Heathrow)

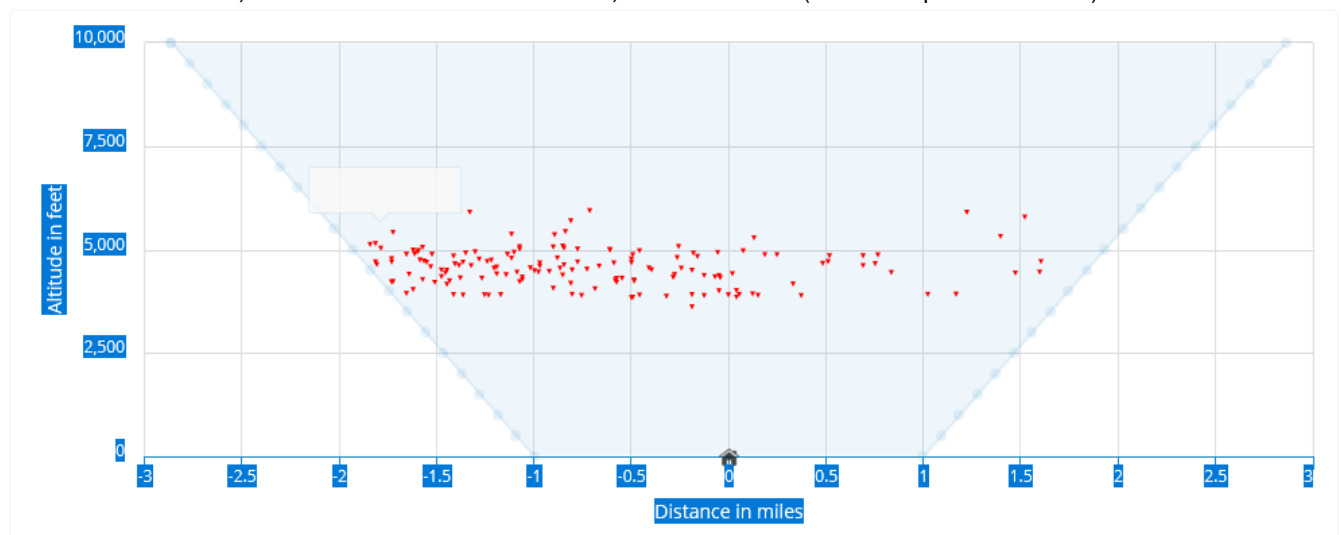


Fig 6. Pattern of arriving Heathrow planes flying over Forest Hill with the station at the centre. (Source:- Xplane Heathrow)

Key issues 3:-

In light easterly winds things are even worse:-

- *City and Heathrow change their operational directions at different wind speeds. In light easterly winds under 5 knots, both Heathrow and City arrivals fly over SE23 at different heights at the same time, from 5am to 11.30 at night.*
- *The combined affect is 150 City flights and 160 Heathrow, giving over 300 total flights per day.*
- **SE23 is a community aircraft noise blackspot - there is no residential respite in this area.**

Heathrow heights and frequencies, westerly operations, when the east wind blows gently

6.1 Strange but true, when the wind blows from the east at less than 5 knots, Heathrow planes still land from the east, and a good number of these, about 160 per day, overfly Forest Hill. Crucially, **at the same** time all arriving City Airport planes overfly Forest Hill at a height of 1600 - 2000 ft above mean sea level, as little as 1300 feet above the residential and parkland area around the Horniman gardens.

6.2 An example of these, not unusual, wind conditions was 25th June 2018. On this day, Forest Hill had the usual low altitude procession of London City aircraft, about 140 over the day, with a maximum of 15 per hour. Simultaneously, a less concentrated procession of nearly 160 Heathrow flights overflew the City Airport aircraft superhighway at a greater height.

SE23 - an aircraft community noise blackspot in action.

6.3 Fig 7 shows a Heathrow arrival at 06.35 on a light easterly wind day, 3 August 2018 flying over Horniman Gardens at around 3500 feet, that is 3200 feet above the ridge of Forest Hill. Two others had crossed the south circular road on a typical line a few minutes earlier (Fig 8), and the pattern continued all day. But incredibly and additionally, City Airport arrival flights were flying east to west along the line of the South Circular at the same time.

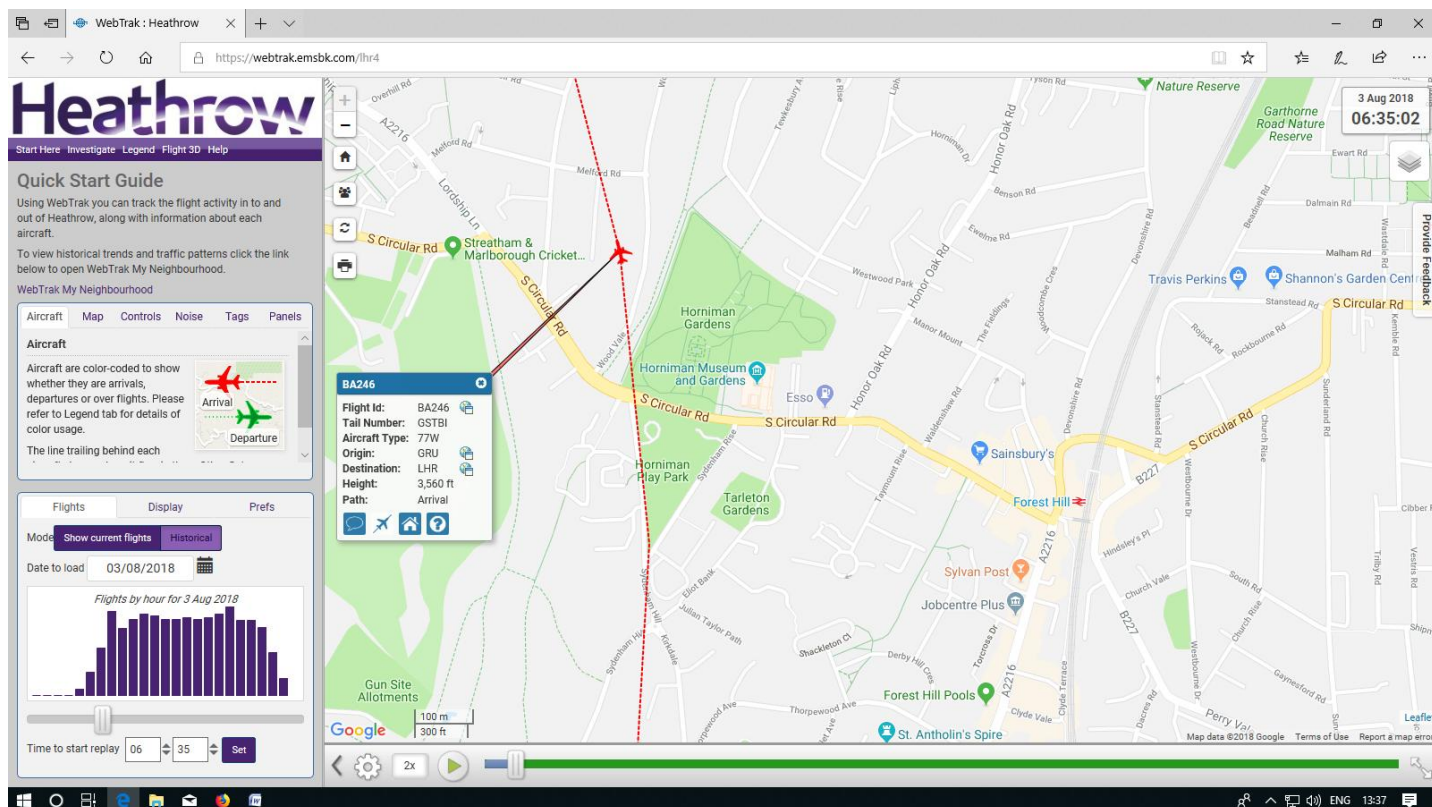


Fig 7. Heathrow arrival crosses the Horniman gardens north to south

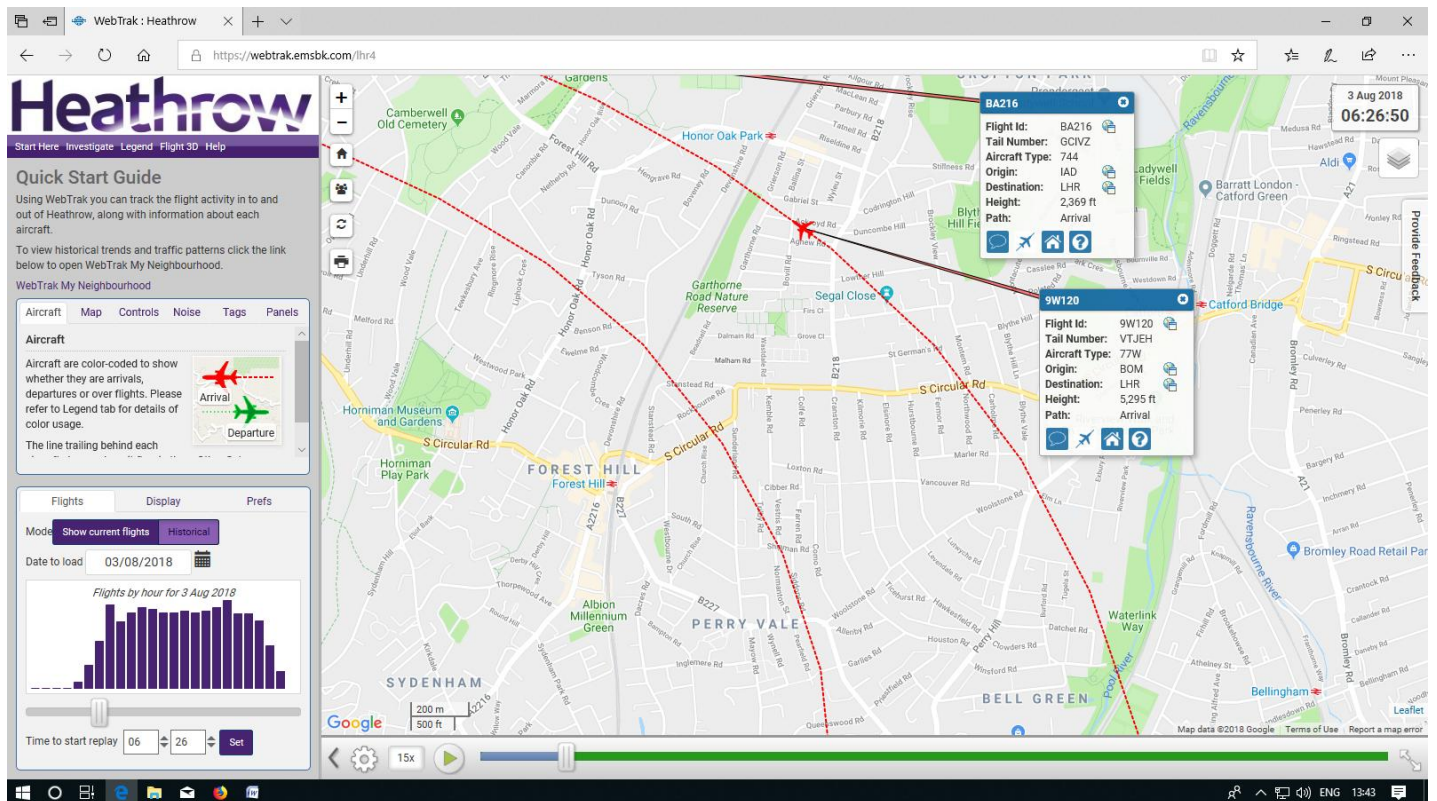


Fig 8. Typical flight paths of arriving Heathrow aircraft over Forest Hill

- 6.4 Fig 9 shows a City Aircraft at 06:43, still 13 miles from landing, at only 1600 feet, that is 1300 feet above the Horniman Museum and Gardens. 12 more City aircraft flew this same route in the next hour.

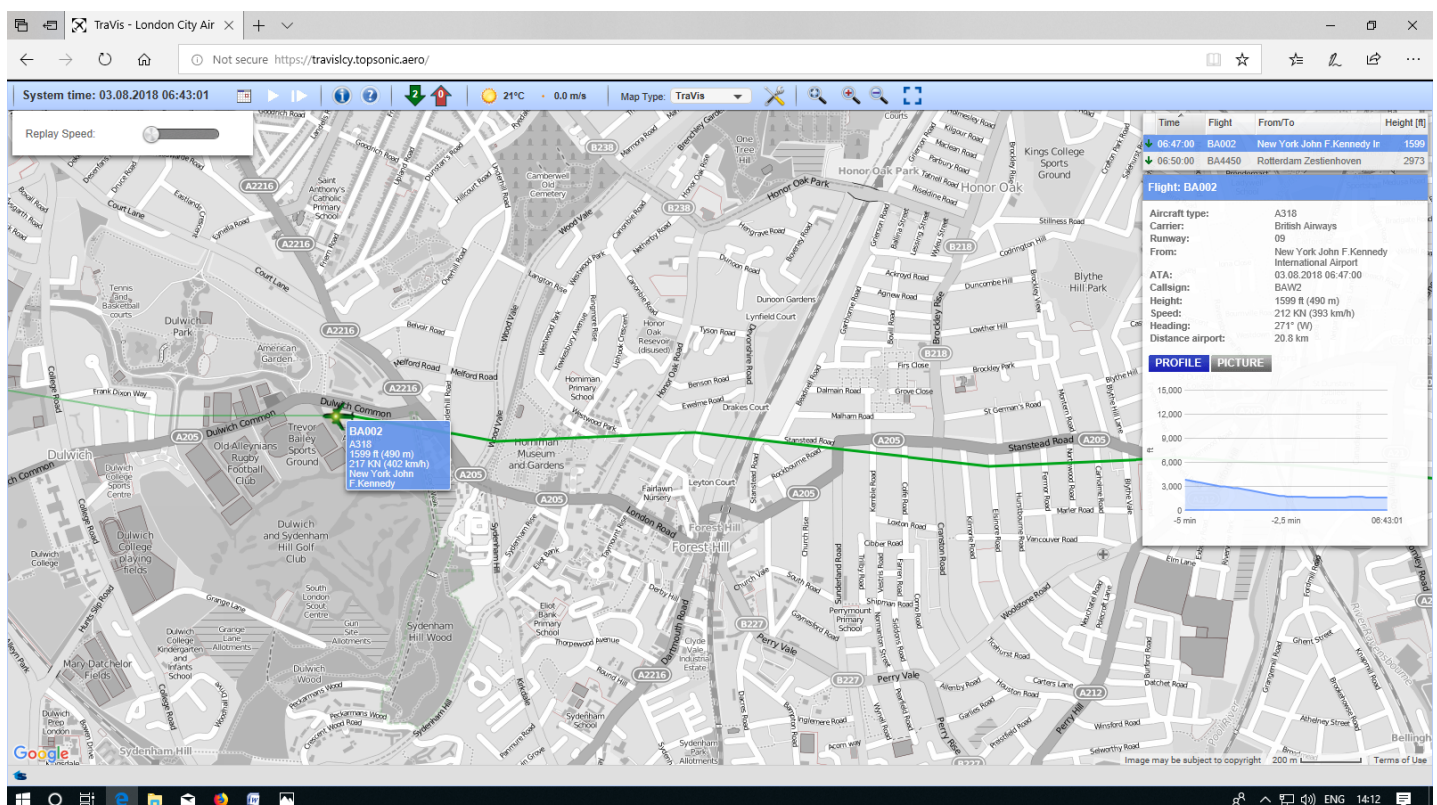


Fig 9. City aircraft sometimes fly lower than 1600 feet over Forest Hill, that is 1300 feet above ground level in Horniman Gardens.

Key issues 4:-

City Airport's arrivals air superhighway create a relentless low altitude procession, on a very accurate line, creating noise misery about 150 times a day for the same homes day after day.

City Airport aircraft approach South London using concentrated flight paths

- 7.1 Since the introduction of concentrated flight paths - the air superhighways- City Airport arrival planes fly the exact same route, allowing just a few metres north or south as they pass over Forest Hill. They are all at low altitude too – that is 1600 - 2000 feet above Mean Sea Level(MSL), according to TraVisCty, the City Airport flight tracker.
- 7.2 Forest Hill station is at an elevation of 150 ft above MSL, while the Horniman Gardens are at 300ft. These planes then are as little as 1300ft /400 metres feet above one of the London's best known museum and gardens – just the length of a running track above our heads.
- 7.3 The concentrated flight path route is just south of Catford, then flying west, just south of Stanstead Road, touches the north end of Sunderland Road, directly over the Horniman Museum and on to Dulwich Common, where it turns north heading to land at City Airport from the west. Fig 10 shows a map of the route taken from City Airport's flight tracking system.

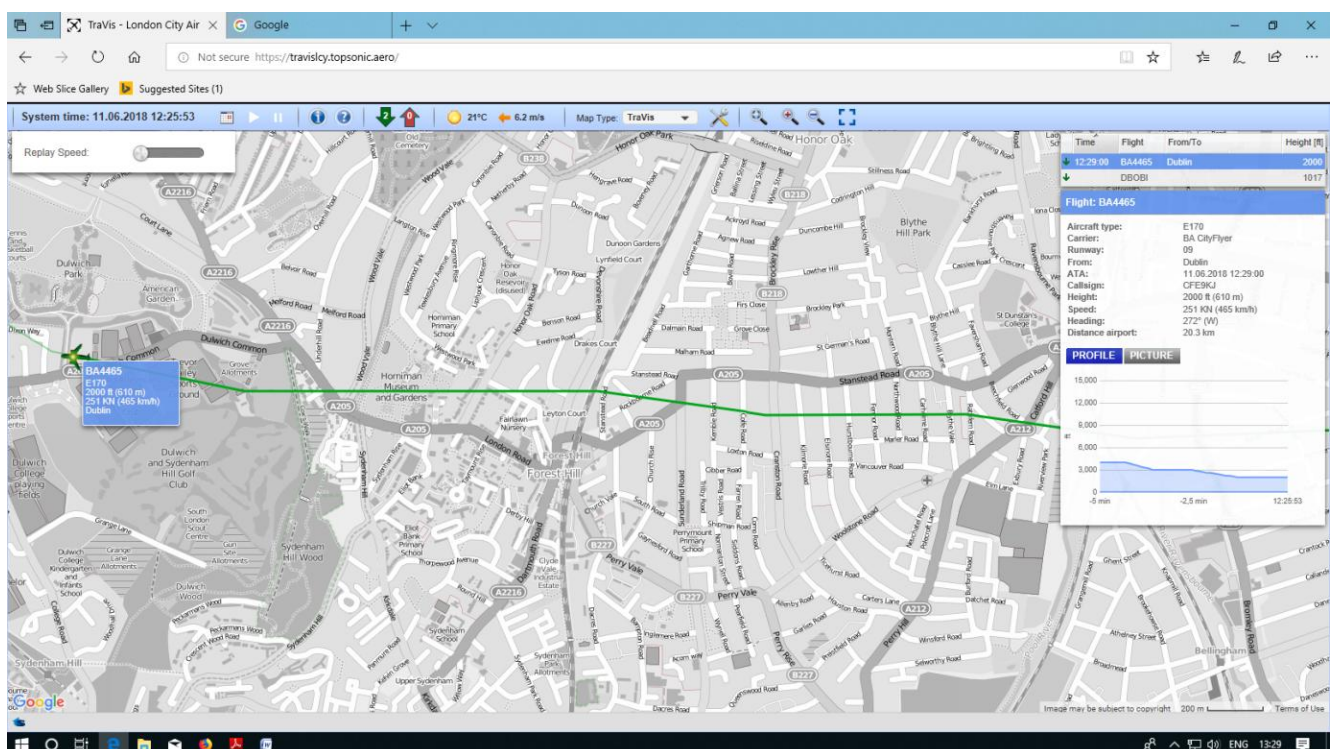


Fig 10. City Airport flights follow an exact line, over the same homes every time with no respite

- 7.4 Even if City planes are claimed to be at historically quiet levels, that hardly makes a difference when overflown at low altitude at short intervals from 6.30 am to 10pm. The human impact on quality of life is huge.
- 7.5 From nearly a mile south of this route the planes are visible, markings on them are readable with the naked eye. The noise is such that if outside in the garden, conversation has to pause while they pass. The frequency is wearing. Enjoyment of our outside spaces is badly affected. A stroll in Horniman Gardens, for example, is interrupted by every single City Airport plane. These planes affect a corridor of homes about a mile and a half wide.

- 7.6 City Airport introduced these concentrated flight plans without planning any respite for residents - for example by varying the concentrated flight path to overfly different areas on different days, south into Kent, or north of the river for example. Nor has it used its advanced technology to introduce offset arrival paths, allowing alternating respite, in the manner that Heathrow does using its two runways. The lack of concern shown by London City Airport for the South East London residents unfortunate enough to live under their new air superhighways is totally unacceptable.
- 7.7 City Airport has plans to expand its activities - it wants more planes, more passengers, more revenue. But there appears to be no mention of plans to change the way it has adversely impacted millions of Londoners by introducing a proper, fair residential respite strategy to mitigate the disaster it has created by concentrated flight paths.

Extreme low altitude over 20 miles from the airport

- 7.8 Fig 11 shows a typical weekday morning BA flight to City Airport 32.9km /20.4 miles from landing. It is already under 2000 feet over Sidcup, and passes over Forest Hill at just 1593 ft/490m – 1300 feet above Horniman Gardens with still 21.5km/ 13.5 miles to fly before landing.
- 7.9 City claims that its aircraft land at a steeper than usual flight angle, but this is a very narrow interpretation of the facts and refers only to what happens in the immediate vicinity of the airport in the final mile or so of landing. 20 miles from the airport these aircraft should be far higher. City Airport flight path planning takes no account of the need for noise management of overflown areas. For comparison, we might expect a Heathrow plane to be at over 5000 feet when overflying residential areas 20 miles from the airport.

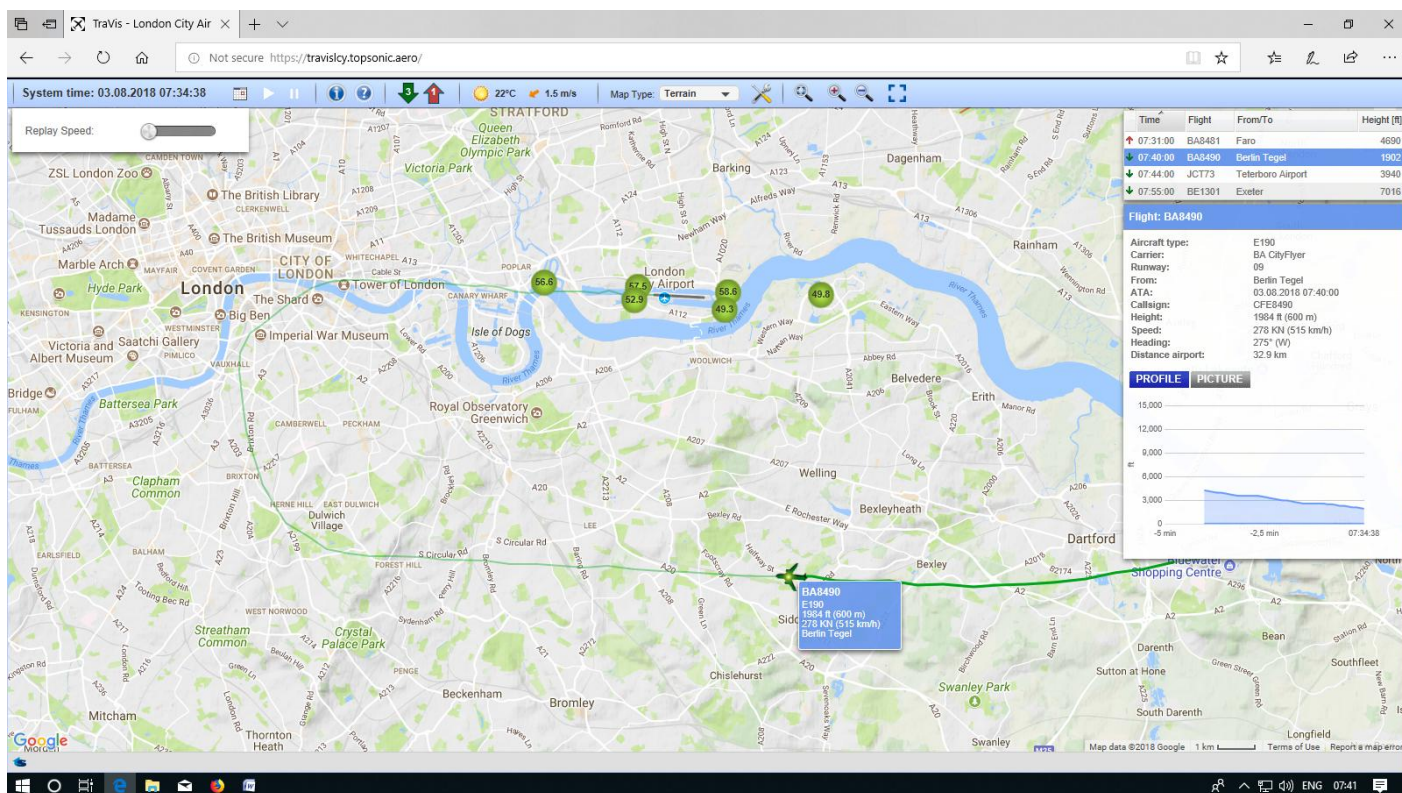


Fig 11. City Airport flights are at low level as far away as Sidcup, here at 2000 ft 20 miles from landing (Source: City Airport's TraVis flight tracking app)

Frequency of City Airport planes over Forest Hill

7.10 Taking one typical weekday as an example, Friday 8th June 2018, 142 City Airport planes overflowed Forest Hill following the exact same route at low altitude.

City Airport flights, Forest Hill 8 June 2018																		
Time	6-7am	7-8	8-9	9-10	10-11	11-12	12-1pm	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	Total
no of flights	4	10	11		7	5	9	9	8	6	10	11	15	14	7	4	1	142

Fig 12. City Airport flight frequency by hour of the day.

(Note: Over 97% of planes landing at City Airport on this day followed the exact same path. Only one plane was observed flying slightly to the south of the concentrated path, 2 planes landed at City from the north, and there were two significant outliers from the path to the north, flying west over Honor Oak Park. Source City Airport TraVislcy tracker).

7.11 Forest Hill is just one of the communities affected by City Airport's concentrated flight paths. We should also have sympathy for communities as far east as Dartford (though planes there are higher) and northwest to Dulwich and Stockwell.

7.12 This distribution of aircraft is oppressive and inequitable, a wholly unreasonable burden for residents under the concentrated flight path whose enjoyment of their homes has been blighted by the change, from February 2016. The decision to offer no respite looks deeply flawed, avoidable and to say the least thoughtless. It shows disregard for the quality of life of London residents by the contributing and coordinating authorities, particularly the Department for Transport, National Air Traffic Services, the CAA and City Airport.

Key issues 5

- *Arriving aircraft from City at as little as 1600ft are noisy and disturb everyday activities. Those from Heathrow at 3-5000 feet are larger and have a similar decibel level – 55-75 decibels is typical. The combination is a blight on residents who have had air superhighways imposed on them despite living many miles away from the airports.*
- *City Airport seems unconcerned. They are consulting on their Noise Management Plan for 2018-23, but there is nothing to say they plan to address the huge number of complaints received, or the issues set out here, which they created by introducing a concentrated flight path - their aircraft superhighway.*

Noise levels of overflying aircraft

- 8.1 City Airport has chosen not to monitor sound along its concentrated flight path. It restricts its noise impact measurements to a very small area immediately around its airport. It relies there on an averaging decibel measure over a whole day. Using this measure Forest Hill is well outside the area immediately surrounding City Airport where a measure of dB LAeq (an averaging noise measure used in Health and Safety settings) noise contour maps indicates residential areas that may be entitled by regulation to some kind of mitigation measures.
- 8.2 According to the recent Government Airports National Policy Statement (2018), 54 dB LAeq,6h signifies a level at which 'significant community annoyance' starts to occur. We do not have this type of averaging sound measurement for Forest Hill, but would be interested to know what the figures would be for the peak hours of 15 City planes plus 15 simultaneous Heathrow planes per hour, for example in the early evening when residents are enjoying outdoor spaces like Horniman Gardens, particularly in summer.
- 8.3 An averaging measurement does not adequately reflect the impact of the very early morning or the busiest hours, but serves the interests of the airline industry in obscuring the real human impact of low flying aircraft over residential communities. Complaints of being woken around 5am fill social media websites across South East London. This is not surprising when an aircraft decibel measure at this time in a South East London garden can easily hit 70-75dB.
- 8.4 The adverse and long term health effects of sleep fragmentation caused by external noise are well documented. The CAA quotes research stating that increased aircraft noise increases the risk of hospital admission. Decreased total sleep time is associated with obesity, hypertension, diabetes and increased mortality.
- 8.5 A procession of over 150 50-75 dB aircraft overflying a home in a day, following exactly the same low altitude path over exactly the same homes seems entirely unreasonable and with sophisticated guidance technology available to Air Traffic planners, entirely avoidable.
- 8.6 The need for residential respite is even greater when we see that on many days over 300 City and Heathrow flights affect the one mile radius around Forest Hill station, with many passing almost directly overhead.

Noise measurement at altitude of 1000 feet

- 8.7 City Airport has a noise level monitor installed at East India Dock Basin, 4.5 km west of the Airport and about 200 metres north of the flight path.. This regularly shows a level of 70-75 decibels as aircraft pass by it at around 1000 feet. This altitude is only 300 feet lower than when the aircraft pass directly over Horniman Gardens, about 13 miles earlier in the flight. Fig 13 shows the noise monitor at 71 dB as a plane passes just to the south of the monitor.

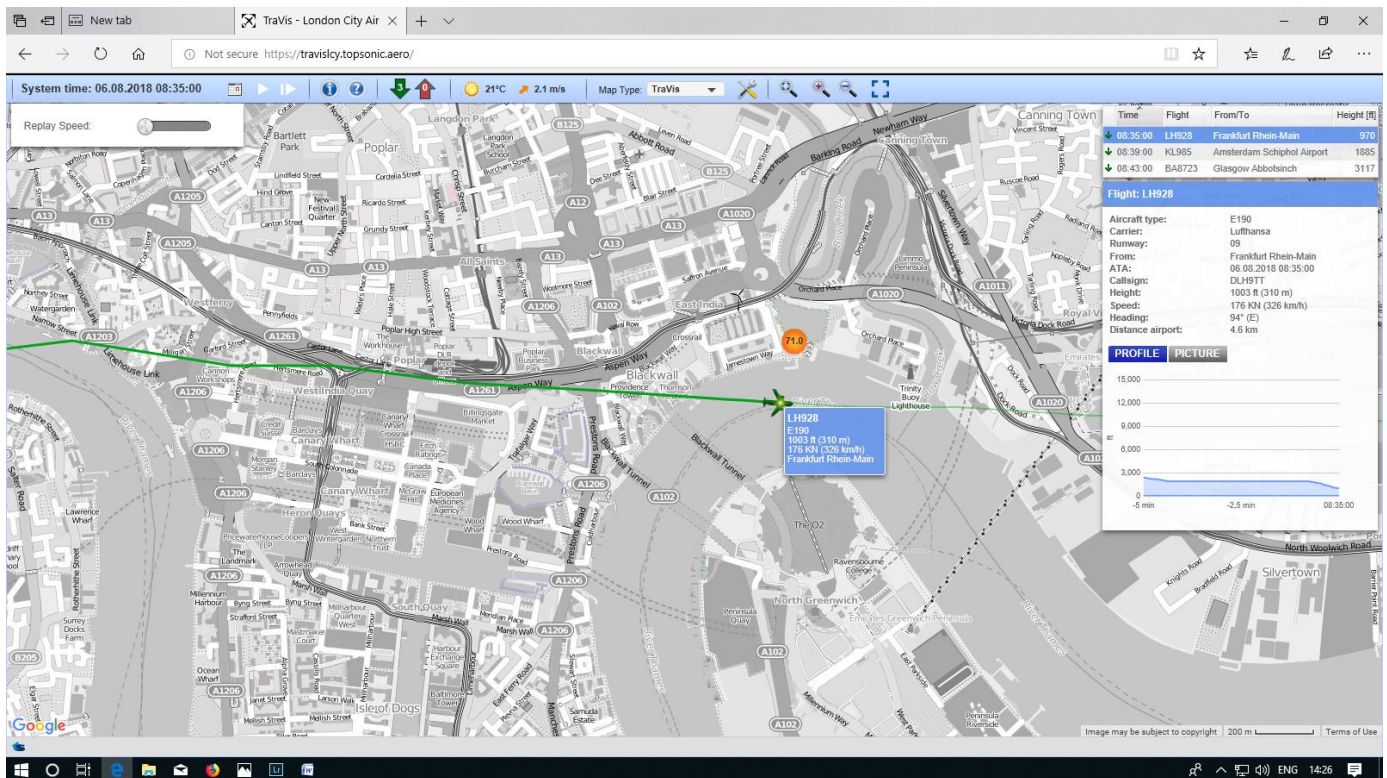


Fig 13. Noise from a City flight is measured by City Airport at over 71 dB flying at 1000 feet – only 300 feet lower than many flights pass the Horniman Museum 15 miles earlier in their flight.

City Airport Noise Action Plan 2018-2023

- 8.8 City Airport is currently consulting on its draft plan for 2018-2023. The main purpose of the NAP is to establish the noise impact of the airport in order to consider whether the current noise management measures are sufficient to adequately protect the local community, particularly those worst affected.
- 8.9 In the light of all the above, readers may be unsurprised that there seems to be little or no acknowledgement of the impact on communities of concentrated flight paths. Tables show clearly the 4 fold increase in complaints since they were introduced in 2016, but are published without comment.
- 8.10 Perhaps City Airport does not consider residents beneath its own flight paths to be part of the 'local community' to which it has responsibilities.
- 8.11 Meanwhile the EU Environmental Noise Directive is quite clear that '*When developing noise management action plans, Member States' authorities are required to **consult the concerned public.***', which campaigners claim did not happen to any reasonable extent in the case of noise level measurement and changes for local communities when City Airport concentrated its flight paths in 2016.

- 8.12 City seems to be making remarkably little effort to consult with overflowed communities, with its draft noise management action plan hidden away in a corner of its website. Londoners outside the measured noise contour but living under City Airport concentrated flight paths can take only a shred of comfort from City's reliance on statements like this:-

'these residents will benefit from all of the other noise mitigation measures described in Section 6, which limit the number and size of the aircraft and ensure that aircraft are operated as quietly as possible.'

- 8.13 Newham, Greenwich and Tower Hamlets are referred to as being overflowed by low flying aircraft, but there is no mention of Lewisham, Southwark Bexley or Kent. Some boroughs have Noise and Transportation Policies which City claim to be taking into account. Other communities, it appears, are deemed to be unaffected and not actively consulted?

How to Respond to City Airport's Consultation

- 8.14 To read and respond to the action plan, here is what City say on their website:-

'Noise Action Plan'

In 2013 London City Airport (LCY) published a Noise Action Plan in accordance with the Environmental Noise (England) Regulations 2006, outlining LCY's extensive commitments to monitor, manage and reduce the impacts of aircraft noise from 2013-2018. The main purpose of the Noise Action Plan is to review the noise impact of the airport, and to determine what actions will be carried out over the 5 year duration of the strategy, to sufficiently protect local communities from aircraft noise in line with current legislation, and national and local policy. This document can be found here: [Noise Action Plan 2013 2018](#). Noise Action Plan Consultation

*LCY are now updating this plan to cover the next 5 years, and are seeking feedback from stakeholders and members of the public. This feedback is very important to the review of the Noise Action Plan, and LCY has therefore launched a consultation which will run for 6 weeks from **25th July to 5th September 2018**. The draft Noise Action Plan 2018-2023 can be found here: [Noise Action Plan 2018-2023](#).*

Please send any comments you have to [the environment team](#) or to the following address:

*Environment Team
London City Airport
City Aviation House
Royal Docks
London
E16 2PB'*

Key Issues 6

- *Campaign Groups led by HACAN, HACAN East, Plane Hell Action Southeast, AirportWatch and others have been doing their best to make the case for what has gone wrong, including by dialogue with responsible bodies and by encouraging individuals to lobby those with influence – particularly the Department for Transport, CAA, NATS, and elected representatives – London Mayor, London Assembly, Borough Councils.*
- *But to date, concentrated flight paths remain unaffected, and City Airport expansion plans march on. Which of these bodies will take responsibility for residential aircraft respite and the failing policy of concentrated flight paths?*

Lewisham Council and elected representatives

- 9.1 It is not known at the time of writing whether Lewisham Council has taken interest in the noise concerns from overflying aircraft. Since the introduction of City Airport concentrated flight paths it would seem timely for the Council 's environmental officers to take an active interest, for example by:
- Developing noise and transportation policies including aircraft noise to support the needs of residents
 - Taking an active part in influencing City Airport- for example by responding to their Noise Action Plan consultation.
 - Elected representatives –eg the Mayor of Lewisham and local MP, joining the efforts of the London Mayor Sadiq Khan, the Chair of the Transport Committee, Caroline Pidgeon in supporting opposition to the existing flawed concentrated flight paths and making representations to the CAA, NATS, City Airport and the Department of Transport.

Fair residential respite for London is possible – what could be done?

10.1 Department for Transport, Ministers, Civil Aviation Authority, NATS, London Assembly, Borough Councils

- Offer ownership and leadership, accountable to residents and their representatives, not just to airports, airlines and big business.
- DfT hold a summit including campaign and residential groups to review the key issues and set plans for a new fair approach to residential respite planning.

10.2 Objectives

- Coordinated residential respite planning and action between London City and London Heathrow airports over flightpaths and residential respite, overseen and scrutinised by the DfT, CAA and Borough Councils.
- A demonstrably fair and coordinated distribution of necessary aircraft from both airports over residential homes, with residential respite planning and outcomes reporting annually.
- Proper noise measurement and reporting by airports from under their flightpaths at 3000 feet and under, not just in the immediate vicinity of their airports, as with City Airport at present.
- An urgent end to London City concentrated flightpaths as introduced in February 2016. Reversion to the previous dispersed model until a better solution offering proper residential respite is developed.
- London City concentrated flightpath planning to consider urgently the following:
 - City aircraft to remain at least 1000 feet higher and then a minimum of 2000ft above ground level until they reach their final landing approach from the west.
 - City to create new alternate concentrated flight paths to the south of the current one, perhaps three at 2 mile spacings to introduce residential respite
 - City to create new alternate concentrated flight paths to the north of the river, perhaps three at 2 mile spacings to bring long term residential respite.
 - City Airport to create offset arrival paths along the lines of the trials used by NATS and Heathrow for departures. The Offset Standard Instrument Departure (SID) trial utilises modern aircraft precision navigation (RNAV) techniques to fly a precise track 1km from the centreline of the current SID which alternates from 'left' to 'right' on a weekly basis. This lateral 'side step' can potentially reduce concentrations of noise beneath existing departure routes, providing a form of predictive noise respite.
- Early morning (4-7am) Heathrow flights to remain at least 1000 feet higher, taking a steeper final approach
- Early morning Heathrow flights (4-7am) to be distributed widely over residential homes, preferably in a planned residential respite pattern avoiding concentration over any individual locations.
- An end to individual communities being overflowed by both City and Heathrow planes, with each airport claiming responsibility for only its own flights

10.3 Individual Residents

- Observe, measure, complain.
- Complain to CAA, NATS, Councillors, MP's, Department of Transport. Make enough volume of complaints to get this noticed by influential policymakers
- Complain to London City, London Heathrow airports. Make enough complaints to mean they have to acknowledge and build responses into their planning.
- Join and support HACAN, HACAN East, Plane Hell Action South East or other campaigning groups.
- Publicise these issues on your own local social media.
- Publicise these issues through your local community groups – Brockley Society, Forest Hill Society, Sydenham Society etc. Encourage members of local community groups to take individual action, and community groups to engage fully with all consultation opportunities.

10.4 London Heathrow Airport

- Develop a joint planning strategy and action plan for residential respite with London City Airport
- Consult widely on this with all affected local communities and their Borough Councils.

10.5 London City Airport

- Develop a joint planning strategy and action plan for residential respite with London City Airport
- Consult widely on this with all affected local communities and their Borough Councils.

10.6 DfT and Civil Aviation Authority

- Own and lead residential respite planning, consultation, engagement, reporting and accountability to elected representatives and the public.

Sources and acknowledgements

11. This report has been compiled by Forest Hill resident Tim Walker to inform residents, campaigners, policy makers and noise makers using personal observations and the following:-

- London City Airport website
- London Heathrow Airport website
- CAA website
- Heathrow Airport online tracking systems
 - WebTrak
 - WebTrak Neighbourhood
 - Xplane
- City Airport online tracking systems
 - TraVisley,
- DecibelX noise measurement app for iphone
- NIOSH noise measurement app for iphone
- HACAN and HACAN East websites