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30 January 2024

Tanya Plibersek

The Minister for the Environment and Water

Department of Infrastructure, Transport, Regional Development, Communications and the Arts

Canberra ACT 2601

By Email: eis.submissions@infrastructure.gov.au

Dear Minister Plibersek

WSI – flight path changes to Sydney Airport Runway 34L departures

1 Introduction

We refer to:

- the draft Western Sydney International (Nancy-Bird Walton Airport) – Airspace and flight path design Environment Impact Statement (the ***EIS***) as published at https://www.wsiflightpaths.gov.au/ (the ***WSI Website***) as at 10 January 2024;
- the 'Changes required to flight paths for other airports brochure' published at the WSI Website as at 10 January 2024; and
- information provided to the Strathfield community at the community information event held at Strathfield Sports Club on 12 December, as summarised and supplemented through further correspondence with Airservices Australia and the WSI Flight Paths team at the Department of Infrastructure. We enclose a copy of our questions and the responses received as **Annexure I**.

We are the Homebush Residents' Group, Inc. (the ***HRG***), which is an association of residents in and around the area known as Homebush village, which is located to the south of Homebush station in the suburbs of Homebush and Strathfield. The HRG is registered in New South Wales as an incorporated association with an incorporation number INC2201289. We make these submissions on behalf of the HRG's members, to **oppose** the proposed changes to departure flight paths from Sydney Airport's Runway 34L.

Except for terms specifically defined in these submissions, we adopt the capitalised terms defined in the EIS.

2 Executive summary

Runway 16R/34L is the longest runway at Sydney (Kingsford Smith) Airport (***KSA***). When KSA is in north-flow operation (which we have been told is about half of the time), aircraft land on this runway from the south and take off towards the north. In this mode of operation, the runway is referred to as **runway 34L** and handles about half of aircraft departures.[1]

[1] 2,963 total departure aircraft movements used 34L in November 2023, compared to 3,036 using 34R in the same month. See response 1, Annexure I.

The flight paths of interest in these submissions are the departure flight paths from 34L to the west, east, north and south.

The flight path to the west the (***KADOM SID flight path***) already pass over the Homebush-Strathfield area, which is marked with a blue circle on figure 1 below. Under the flight path changes proposed in the EIS, the east-bound departure flight path is proposed to be moved to align with the KADOM SID flight path. This change is marked with blue arrows in figure 1 below.

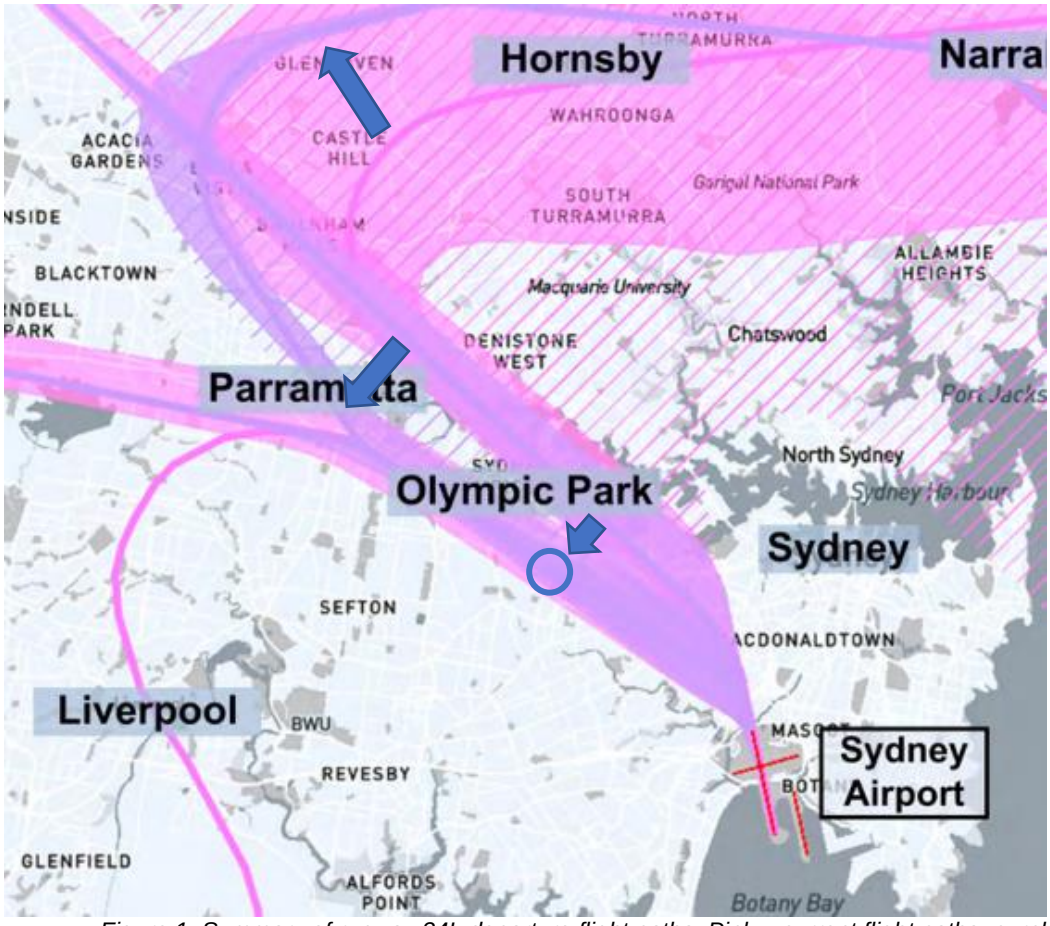

Figure 1: Summary of runway 34L departure flight paths. Pink = current flight paths; purple = proposed flight paths. Source: 'Changes required to flight paths for other airports' brochure

In November 2023, there was an average of 98.8 departures per day on runway 34L.[2] The proposed change will, in summary, result in departures to the east, west and south – the large majority of all departures from 34L – passing over the Homebush-Strathfield area. Moreover, compared to the current situation, aircraft will be more concentrated on the track centreline,[3] rather than being spread out over the shaded/hatched areas indicated in figure 1 above.

In combination, based on the information available, it is clear that the impact of the change on the Homebush-Strathfield area will be significant. The noise events affecting it will double, from 10-19 events about 70dB on average per day, to 20-40 such events per day.[4]

There is a key failing in the EIS here. It analyses the east and west bound flight paths separately and does not acknowledge the cumulative effect arising from combining the two flight paths. As a result, the EIS does not conduct any meaningful analysis of the cumulative impact.[5] For example, the EIS does not calculate the

[2] Based on 2,963 total departure movements using 34L in November 2023. See response 1, Annexure I.
[3] See response 15, Annexure I.
[4] Based on currently 10-19 events above 70dB (from westbound aircraft) on average per day, adding in another 10-19 events above 70dB (from eastbound aircraft) on average per day. See response 16, Annexure I.
[5] See, for example, section 21.5.1.2 of Chapter 21 of the EIS, which does not attempt any cumulative analysis.

change in forecast noise exposure level (ANEF). Nevertheless, based on existing contour data for KSA we would expect the change to bring the affected area within the 20 ANEF contour as far west as Sydney Olympic Park, which exceeds the acceptable ANEF based on the applicable Australian standard AS2021.

Moreover, while we are told there are technical reasons for moving the eastbound flight path, there are no technical or operational reason (other than the convenience of the flight path designers) why it should be combined into the KADOM SID flight path.

The proposal therefore introduces an unacceptable level of noise impact affecting residents, numerous schools, hospitals and social and religious institutions in the Homebush-Strathfield area. There is insufficient technical rationale to justify this impact, and it is a violation of the noise-sharing principle which was supposed to be one of the guiding principles to the flight path design process. By concentrating aircraft noise over one area, the proposal does not 'enable compliance with the imperative to avoid changes to KSA noise sharing arrangement';[6] it does precisely the opposite.

We urge you to:

- determine that the proposed flight path change of eastbound flight path departing from runway 34L, from following the RICHMOND-SID to following the KADOM-SID as far as Parramatta, should be rejected and redesigned, in order to avoid the unacceptable impact of the proposal and to maintain the equitable spread of air traffic noise which is a fundamental part of the noise sharing arrangement applicable to KSA under law; and
- reject the draft EIS insofar as it relates to this proposed change, and to require the final EIS to include an analysis of the noise impact, as well as other impact, cumulatively by reference to all flight paths affecting each area, and not artificially separating the impact by individual flight paths.

More detailed analysis of the impact of the changes follow in sections 3-4, which also address the key shortcomings of the EIS, and our suggested approach to the redesign of this proposal is set out in section 5.

3 The baseline

3.1 Context – the Homebush-Strathfield area

Key features of the Homebush-Strathfield area which are relevant to flight path design are:

- This area includes areas of unusually high population density, with high rise residential buildings clustered around Strathfield and Homebush stations. **40,000 people live in the suburbs of Strathfield, Homebush and Homebush West**. The New South Wales government has announced that the entire area within 1,200m of Homebush station is one of eight “accelerated precincts”, which will be rezoned for high- and mid-rise residential buildings.[7] This will result in a further, dramatic increase to the population in this area over the next few years.
- This area includes an unusually large number of educational institutions. The suburbs of Homebush and Strathfield alone contain **13 primary and secondary schools[8] and a university.**[9]
- This area contains an unusually large number of social and religious institutions, including nursing homes and training facilities such as the Seminary of the Good Shepherd and the Catholic Institute of Sydney and the Australian headquarters of a number of religious denominations.[10]

[6] See response 18, Annexure I.
[7] NSW government press release “A Shared Responsibility: The plan to begin addressing the housing crisis in NSW”: https://www.nsw.gov.au/media-releases/addressing-housing-crisis-nsw
[8] Homebush Public School, Marie Bashir Public School, Strathfield South Public School, Chalmers Road Public School, Homebush Boys' High School, Strathfield Girls' High School, Strathfield South High School, St Patrick’s College, Santa Sabina College, Santa Maria Del Monte Primary School, Meriden Anglican School for Girls, Trinity Grammar School Preparatory School, St Martha’s Primary School.
[9] Australian Catholic University
[10] Including the Maronite Church, the Ukrainian Orthodox Church and the Russian Orthodox Church.

3.2 Current aircraft noise level

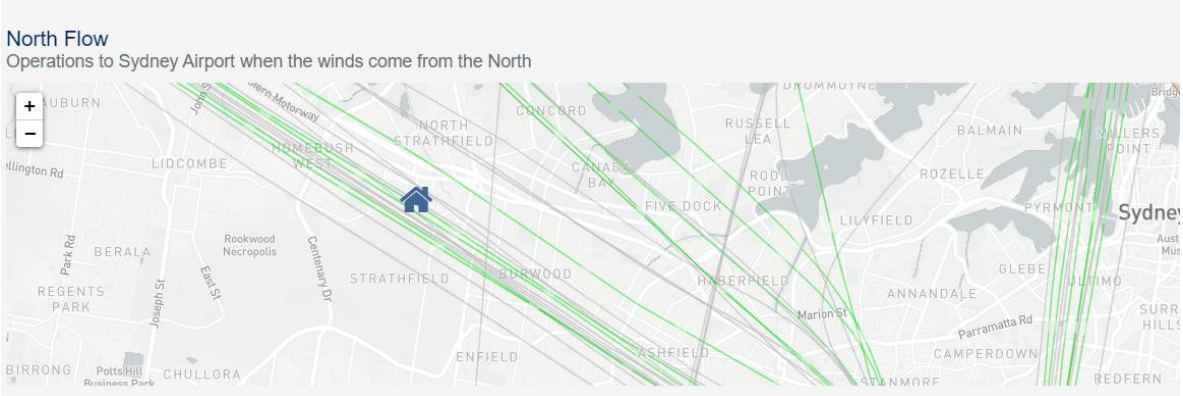

Figure 2: Current actual flight path arrangement over the Homebush-Strathfield area. House symbol = Strathfield Central Library (65 Rochester Street Homebush).
Source: 'Aircraft in your Neighbourhood' tool published by Airservices Australia at https://aircraftnoise.airservicesaustralia.com/

Currently, the Homebush-Strathfield area is overflown by the westbound departure path from runway 34L. Aircraft leaving KSA along this flight path head north-by-northwest towards Katoomba (waypoint KADOM). This is referred to as the "South-West Departures (Jets)" flight path, but for convenience, we adopt the proposed new terminology used in the EIS and refer to this flight path as the runway 34L **KADOM SID**. No other standard flight paths overfly this area.

We are informed that the nearest noise monitor is in Croydon. As Croydon is only 3km to the east and close to the same flight path, we accept that air traffic noise data captured at Croydon is an upper bound for air traffic noise levels at Homebush-Strathfield.

In November 2023, there were 42 movements over the Homebush-Strathfield area per day on average, and a maximum of 123 flights per day, which occurred on two days. Based on data captured at Croydon, the precise number of very loud (>70dB) noise events resulting from these movements is unknown – this data is apparently not captured – but extrapolating from the instances of the loudest planes (whose average noise level exceed 70dB), there were approximately **20 very loud (>70dB)** noise events on average per day.[11] We do not have sufficient data to calculate the current number of loud (>60dB) noise events, but based on the overall number of overflights and usual distribution of noise events expect this to be more than 40.

4 The proposal

4.1 Proposed flight path change

A number of changes to flight paths are contained in the current proposal. The two changes that are expected to have the greatest impact are:

- **Shifting the runway 34L RICHMOND SID eastbound departure flight path onto the KADOM SID flight path**. The north and east bound departure flight path from runway 34L currently heads northwest towards Richmond (waypoint RICHMOND) – which we will refer to as the **RICHMOND SID**. Eastbound flights follow this flight path northwest as far as Seven Hills and Carlingford, then turn towards the east. Under the proposal, northbound departure flight path will continue to use RICHMOND SID, but eastbound flights will follow KADOM SID as far as Parramatta (waypoint NB010), then turn in a wide arc over the far northwest towards new waypoint SHORE, located over Warriewood. Between the airport and NB010, it will precisely coincide with the KADOM SID

[11] See response 4, Annexure I.

westbound flight path.[12] This means areas currently under the KADOM SID flight path (such as Homebush-Strathfield) would receive the cumulative noise impact from both flight paths.

- **Keeping all flights closer to the path centreline**. Whereas actual flight paths are relatively spread out along the nominal centreline (see Figure 2), we are told that aircraft would now be more concentrated on the centreline,[13] which reflects the more controlled ascent under the new procedure. This means much more of the flights along the flight path is expected to overfly the areas currently under the KADOM SID flight path (such as Homebush-Strathfield).

4.2 Noise level impact

Despite repeated requests and a significant effort at independent investigation, it appears that the data simply does not exist as to the precise cumulative noise impact on our area from the proposal. The EIS certainly does not set this out.

Based on the *separate* contours provided in the EIS and the WSI overflight noise tool, the expected noise contours affecting the Homebush Strathfield Area are as follows:

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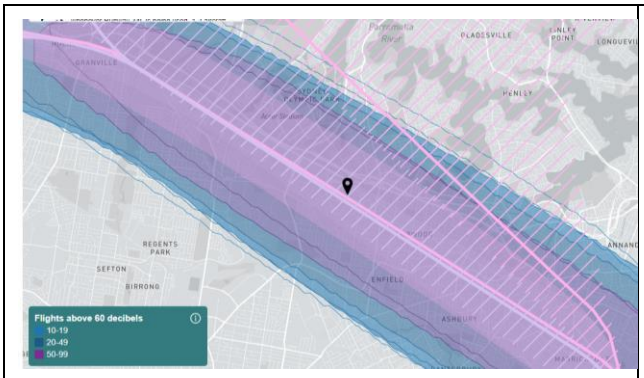
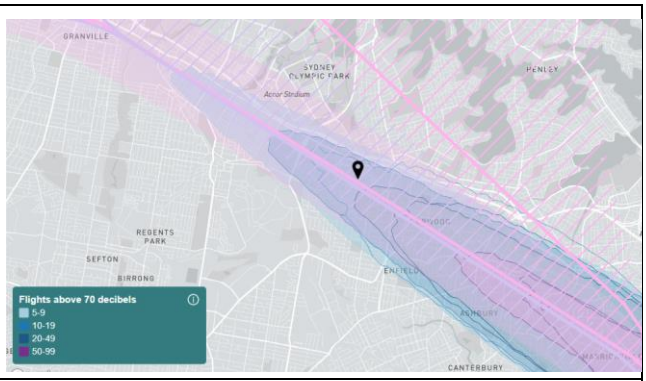
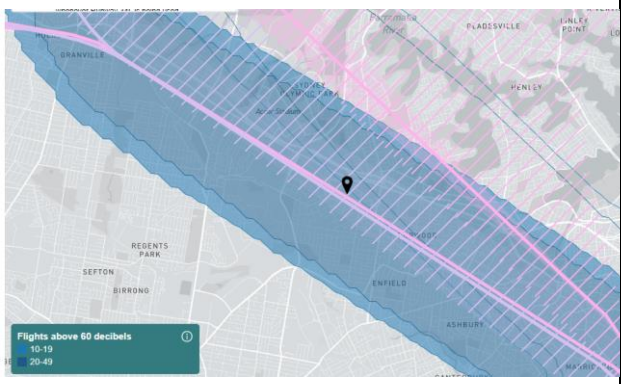
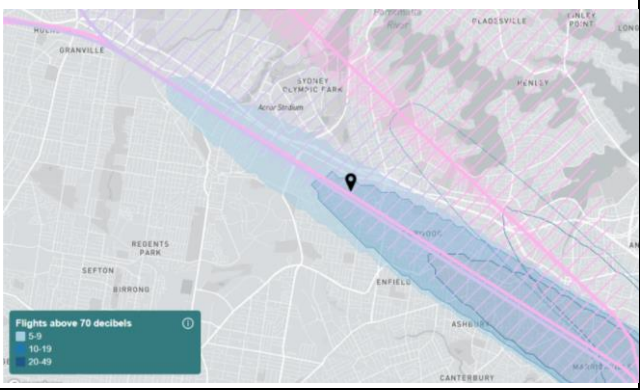
<tr><td> 
</td><td> 
</td></tr>
<tr><td>Westbound departures – N60</td><td>Westbound departures – N70</td></tr>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>Eastbound departures – N60</td><td>Eastbound departures – N70</td></tr>
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Figure 3: Noise contours under proposed flight paths. Marker = Strathfield Central Library (65 Rochester Street Homebush).
Source: Western Sydney International (Nancy-Bird Walton) Airport Aircraft Overflight Noise Tool at https://wsiflightpaths.aerlabs.com/

The following are the ranges we have been told to expect[14]:

Flight paths	Movements (avg/day)	Loud (>60dB events) (avg/day) – N60	Very loud (>70dB events) (avg/day) – N70
Westbound	80	50-99	10-19

[12] Sections 8.2.1.2, Chapter 8, and 21.5.1.2, Chapter 21 of EIS.Chapter 21, EIS, and particularly figure 21.10.
[13] See response 15, Annexure I.
[14] See responses 15-16, Annexure I; see also sections 8.2.1.2, Chapter 8, and 21.5.1.2, Chapter 21 of EIS.

Eastbound	30	20-49	10-19
Combined 34L KADOM-SID	**110**	**70-148**	**20-38**

Comparing the data given for the westbound path, >70dB events with the current actual figure (i.e. approximately 20) (see section 3.2), we submit that it would be reasonable to expect the actual figure to fall in the upper ranges given above. We would expect the actual cumulative impact to be in the range of:

Flight paths	**Movements (avg/day)**	**Loud (>60dB events) (avg/day) – N60**	**Very loud (>70dB events) (avg/day) – N70**
Combined 34L KADOM-SID	**110**	**100-149**	**30-39**

4.3 Unacceptable level of impact

The EIS does not calculate the cumulative impact of the combined flight paths. It does not calculate the change to ANEF contours at KSA resulting from the flight path changes.

Nevertheless, based on historical data for KSA, a cumulative figure for >70dB(A) events in the 30-40 range may well place the location of Strathfield Central Library in Homebush (for example) within the 20-25 ANEF contour. In fact, the whole area along the KADOM-SID flight path as far as Sydney Olympic Park may fall within this contour. This would exceed the acceptable ANEF based on the applicable Australian standard AS2021.

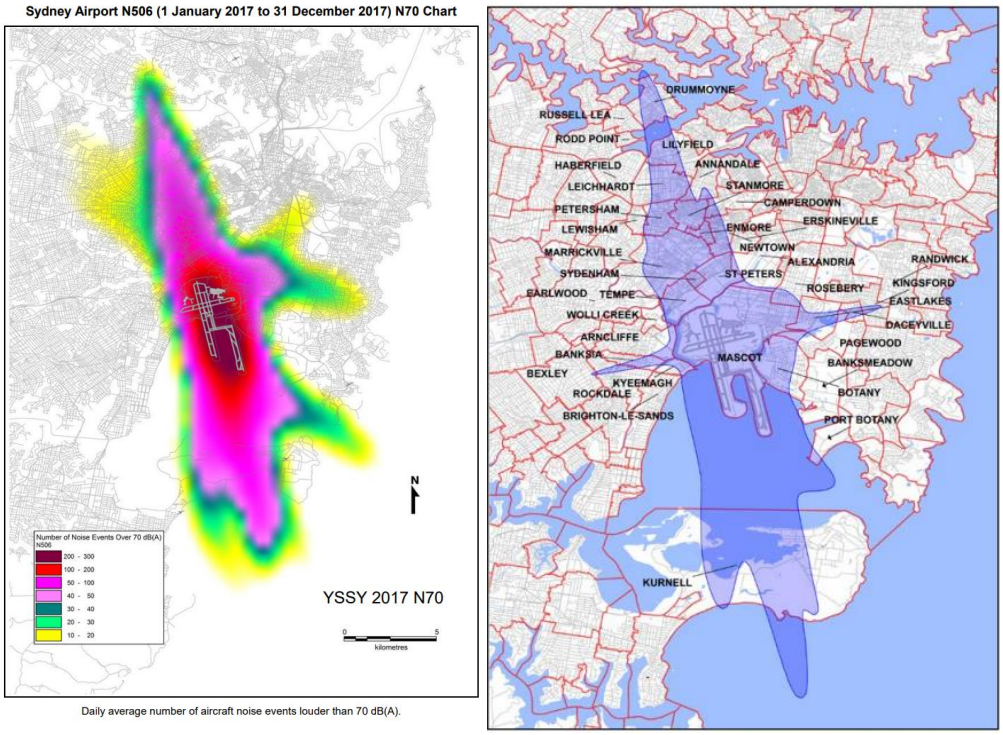


Figure 4: Side-by-side comparison of N70 contours and ANEI 20 contour for KSA in 2017. Source: Sydney Airport 2017 N506 ANEI report (the last annual report publicly available)

We have been told that the new flight path design is, in part, motivated by the need to "avoid changes to KSA noise sharing arrangement".[15] Apparently, the flight path designers thought that the way to "avoid changes" to noise sharing arrangements is by combining one flight path into an existing flight path. This is a

[15] See response 18, Annexure I.

fundamentally flawed and misguided approach. Combining the noise from two flight paths creates the worst outcome in terms of noise sharing, as it removes the impact of that flight path from one area and burdens another area – which is already under a flight path – with that impact. Any other approach – such as swapping the two flight paths, spreading them further out, or moving one flight path to a different path entirely – would result in a more equitable outcome in terms of noise sharing.

We remind you that in the Homebush-Strathfield area alone, the additional impact impacts 40,000 people. There are other high density suburbs nearby that will also be affected, such as neighbouring Burwood (population 15,942). The already announced accelerated rezoning by the NSW government (referred to above in section 3) will rapidly increase the population affected by these changes. The additional noise impact will affect 13 primary and secondary schools in the suburbs of Homebush and Strathfield alone, and will affect a range of other social institutions.

5 Conclusion

5.1 Flight path design

We urge you to reject the proposal to change the eastbound flight path departing from runway 34L due to the unreasonable noise impact on areas under the new, combined KADOM-SID flight path.

We have been told that the rationale for the proposed change is to separate KSA runway 34L departures to the east from flights inbound to WSI and KSA from the north. We are told that this motivated the creation of the new SHORE waypoint over Warriewood. We are also told that the current (RICHMOND SID) flight path for eastbound departures would cause flyability issues: the turn towards the SHORE waypoint would be too tight to be flown accurately.[16]

Accepting these technical imperatives, there remains a large degree of design freedom for the flight path designers to redesign the eastbound SHORE SID flight path departing runway 34L while avoiding – or minimising – the impact for areas under the KADOM-SID flight path.

In particular, the Homebush-Strathfield area is very far from any inbound flight paths that might interact with the eastbound departure flight path. There is significant room to adjust the flight path in this area to minimise noise impact. In principle, we submit that noise burden impacts the least number of residents if the flight path is directed over water, parklands or suburbs that are entirely low density. In this regard, the RICHMOND-SID is preferable compared to the KADOM-SID, as it flies over low density suburbs in the Drummoyne peninsula, water, and large swathes of parkland in the Concord area.

We urge you to also direct the flight path designers to bear in mind the true intent of the KSA noise *sharing* arrangements: these arrangements, which apply under a ministerial direction made according to statute, are intended to produce an equitable distribution of noise impacts across different parts of Sydney. If one flight path needs to be redesigned, simply loading it onto another flight path may be bureaucratically the easiest approach, but it produces the worst outcome and is wholly inconsistent with the intention of the noise sharing arrangements.

With these considerations in mind, we suggest that the flight path designers should consider at least the following ways to avoid the unacceptable impact:

- Aligning the eastbound flight path from KSA on a more northerly trajectory directly towards NB170 rather than by way of NB010, then completing a turn further to the north of NB065 towards SHORE;
- Realigning the westbound flight path with RICHMOND-SID between KSA and NB170, effectively 'swapping' the eastbound and westbound flight paths between KSA and the north-western suburbs; and/or

[16] See response 18, Annexure I.

- Adjusting the location of the SHORE waypoint so that aircraft are technically able to follow the existing eastbound flight path and still achieve a turn towards the SHORE waypoint.

5.2 The EIS

We urge you to reject the draft EIS insofar as it relates to the proposed change of eastbound flight path departing from runway 34L from following the RICHMOND-SID to following the KADOM-SID. The proposal is to combine east- and westbound flight paths as far west as Parramatta, but the EIS does not calculate the cumulative noise impact of combining the two flight paths. For communities under the flight path between KSA and Parramatta, the separate analysis of the two flight paths is meaningless.

We urge you to require the final EIS to include an analysis of the noise impact, as well as other impact, cumulatively by reference to all flight paths affecting an area, and not artificially separated by individual flight paths.

Thank you for your consideration.

Yours sincerely

Homebush Residents' Group, Inc.

Encl.

Annexure I

HRG posed questions at the public information session, attended by DITRDCA and Air Services. Below are their answers and our supplementary questions.

1. *Currently, are there, on average, 900 daily departures from SYD?*

   In November 2023, there were 12,759 departure movements, an average of 425.3 departures per day.

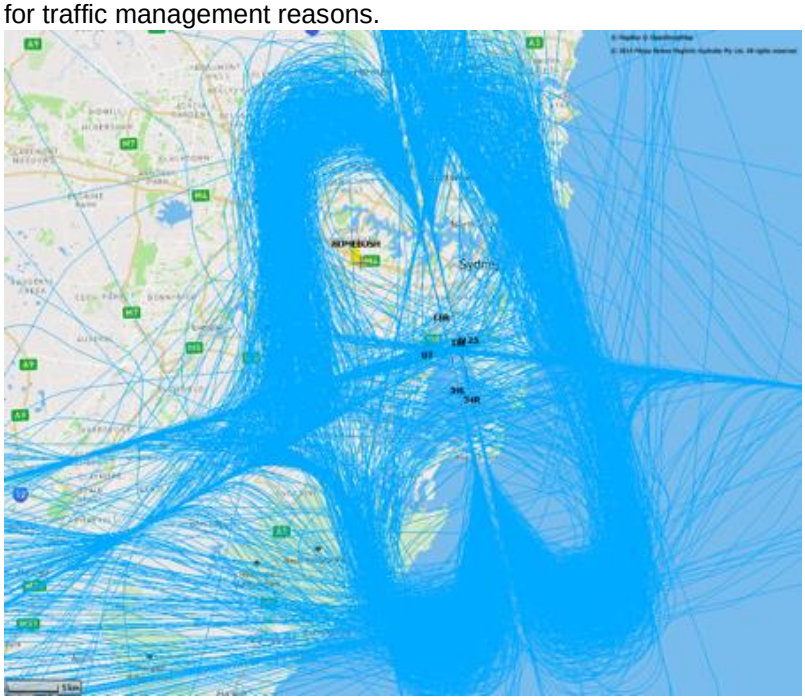
   16L 2,420
   16R 4,340
   34L 2,963
   34R 3,036
   TOTAL 12,759

2. *Currently, on average how many flights pass over Homebush Public School each day?*

   Homebush Public School is overflown by departures from Runway 34L.
   November 2023: average 42 per day

   Supplementary: are there any arrivals over Homebush Public School?

   Arrivals generally track further west and do not usually pass over Homebush. The below image shows arrivals for the first week of January 2024. Over a seven-day period only a handful of arrivals passed near Homebush. Unusual circumstances occur from time to time which require Air Traffic Control to vary the usual flight paths for traffic management reasons.



3. *Currently, what has been the maximum number of flights over Homebush Public School on a day over the last 5 years?*

   25/11/2023: 123
   06/11/2019: 123

Supplementary: does the 123 include departures AND arrivals?

25/11/2023: 121 x 34L departures + 1 x 34L arrival + 1 x Bankstown GA aircraft = 123
06/11/2019: 103 x 34L departures + 20 passes (emergency services helicopter) = 123

4. *Currently, what is the average dB from flyovers at Homebush Public School at ground level?*

Airservices does not currently have a noise monitor in Homebush. The closest monitor is located in Croydon and in November 2023:

Aircraft average noise levels dBA

- This table shows the 15 aircraft types with the loudest average noise levels

Aircraft type	Avg. noise level (dBA)	Total events	Max. events per day	Min. events per day	Avg. events per day
B738	72.7	255	26	1	9
A333	76.9	90	10	1	3
A388	75.9	59	6	1	2
A320	70.4	47	5	1	2
A332	76.7	26	4	1	1
B77W	76.4	34	4	1	1
B789	72.0	37	4	1	1
A321	72.4	11	3	1	0
A359	67.3	26	3	1	1
B788	72.2	21	3	1	1
A21N	68.8	11	2	1	0
B38M	67.7	5	2	1	0
B77L	71.2	7	2	1	0
DH8B	66.3	3	2	1	0
DH8D	65.8	4	2	1	0

Supplementary: is November 2023 typical over the last 10 years?

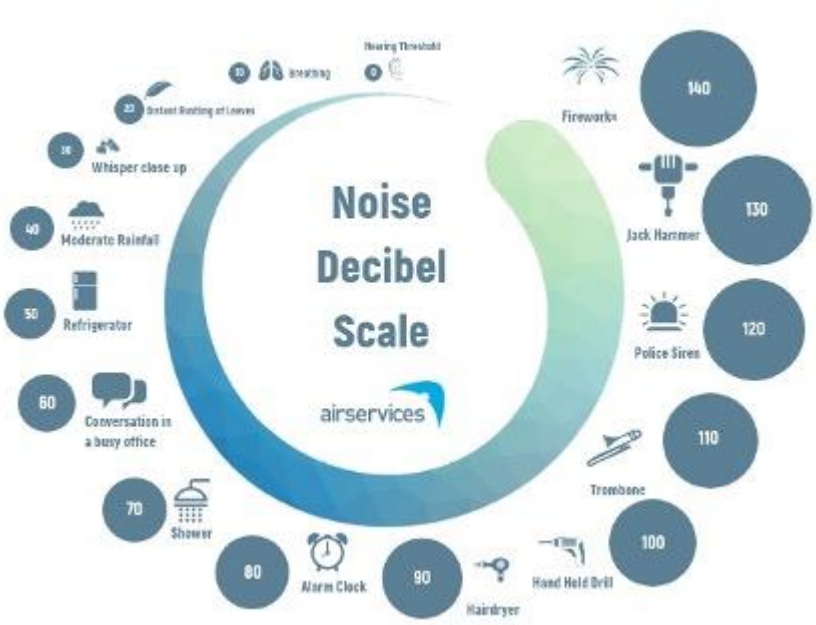
Unable to answer as we do not analyse this data and there are various factors that come to play such as weather conditions and aircraft type used by airlines. Monthly Sydney noise monitoring report is available on our Aircraft in Your Neighbourhood website https://aircraftnoise.airservicesaustralia.com/ The data is available for a rolling five-year period.

5. *Currently, what is the maximum dB from flyovers at Homebush Public School at ground level?*

90 dBA

Supplementary: for the benefit of those less technical, can you confirm that a rotary lawn mowers powered by an internal combustion engine generates 84 to 94 dB(A)?

According to the information on Airservices' website (https://www.airservicesaustralia.com/community/environment/aircraft-noise/monitoring-aircraft-noise/understanding-aircraft-noise/) The sound level of typical daytime urban-based activities can vary between 40dB and 85dB. The typical aircraft noise levels measured by our noise monitors are between 65dB and 95dB. Refer to the picture below for some examples.



6. *Currently, on average how many flights pass over Marrickville each day?*

   Using Marrickville railway station as a location, November 2023: average 81 per day

7. *Currently, what has been the maximum number of flights over Marrickville on a day over the last 5 years?*

   Marrickville railway station used as a location
   03/04/2023: 172
   07/11/2022: 191

8. *Currently, what is the average dB from flyovers in Marrickville ground level?*

   The closest monitor is located at Sydenham, it captures both 34L departures and 16R arrivals.

Aircraft average noise levels dBA

• This table shows the 15 aircraft types with the loudest average noise levels

Aircraft type	Avg. noise level (dBA)	Total events	Max. events per day	Min. events per day	Avg. events per day
B738	86.8	1,826	107	22	61
A320	83.9	410	25	3	14
SF34	81.5	305	22	1	10
A333	87.7	450	21	9	15
DH8D	79.1	356	21	2	12
B789	85.4	381	17	7	13
A332	86.9	262	15	5	9
A359	82.7	284	15	5	9
A388	91.1	304	12	8	10
B77W	89.6	232	11	5	8
B712	83.5	76	7	1	3
B77L	88.0	132	7	2	4
B788	84.0	102	7	1	3
DH8C	83.7	82	7	1	3
A21N	81.3	93	6	1	3

Supplementary: are these all the arrivals and departures over Sydenham?

Correct, the noise monitor captures both arrivals and departures. Unfortunately the noise monitoring report does not allow us to look at departures only.

9. *Currently, what is the maximum dB from flyovers in Marrickville at ground level?*

   95 dBA

10. *How many years of meteorological data have you used in your flight path planning?*

    The preliminary flight paths design for WSI has been based on 10 years of Bureau of Meteorology (BoM) data from the 1 January 2012 to 31 December 2021 from the Badgerys Creek weather station. Information on this can be found in Chapter 7 of the draft Environmental Impact Statement (EIS). Western Sydney International (Nancy-Bird Walton) Airport - Airspace and flight path design | Draft Environmental Impact Statement | Chapter 7 - The project (wsiflightpaths.gov.au). If you want further information on this you can also look into the 2016 EIS for the airport, which examined the single runway alignment for WSI. This can be found on our resources page under background information https://www.wsiflightpaths.gov.au/resources/

    Supplementary: we are interested in the SYD flight paths (WSI paths do not flyover Homebush), so are they based on 10 years of BoM data too?

    To clarify, meteorological data is used to determine the assessment for runway alignment as well as the noise assessment for Western Sydney International (Nancy-Bird Walton) Airport (WSI), as this is a new airport being built. Safety is the main consideration when designing flight paths. If you want to understand how the proposed changes to some flight paths for Sydney (Kingsford Smith) Airport (KSA) were designed the information is available in Chapter 8 of the draft EIS: Western Sydney International (Nancy-Bird Walton) Airport - Airspace and flight path design | Draft Environmental Impact Statement | Chapter 8 - Facilitated changes (wsiflightpaths.gov.au).

11. *Do the future flight paths from SYD planning assume changes to meteorological forecasts? E.g. more days of westerly winds, higher temperatures?*

    The design has been based on historical data.

12. *Prospectively, what will be the average number of flights leaving SYD once WSI is opened and new flight paths are used?*

    WSI is not expected to impact the number of aircraft movements in and out of Sydney (Kingsford Smith) Airport (KSA). If airlines decide to move their operations from KSA to WSI this is a business decision for them, and not something for the department to advise.

13. We have been told that 4% of prospective flights that leave SYD under the new arrangements will fly over Homebush Public School, is this correct?

    The 4% figure relates to the percentage of time that Runway 25 at KSA is used. Runway 07/25 is the east-west runway at KSA. Based on historical data we can see

that runway 25 at KSA is used 4% of the time averaged over a one year period. Runway 25 or Runway 07 are nominally used when the crosswind for the parallel runways exceeds 20kt. This is s safety requirement prescribed by the Civil Aviation Safety Authority. Additionally, runway 25 will be used under the Long Term Operating Plan (LTOP) Mode 7, Mode 8 and Mode 13. Information on this can be found https://sacf.infrastructure.gov.au/sites/default/files/documents/ltop_general_information_fact_sheet_2015.pdf. Homebush Public School is not forecast to be affected by the proposed changes to runway 25 departures.

Supplementary: how many daily flights, averaged over a year, will there be over Homebush Public School, on a before and after basis, including arrivals and departures?

We cannot provide an average figure for daily flights over an area before and after because the number and frequency of flights will vary on a daily, weekly and yearly basis due to differences in airline schedules, which respond to demand, and the runway in use at any time. Each runway at KSA has its own set of flight paths, and each flight path will affect different areas. As the runway in use changes, the flight paths in use will change and so too do the suburbs affected by aircraft movements. The runway in use at any given time and the direction of the traffic flow will vary primarily according to the wind conditions at the airport.

14. *Prospectively, Is the average daily number of flights over Homebush Public School 900??×0.04=36?*

Supplementary: what is the average daily number of flights over Homebush Public School from all departures and arrivals?

15. *Prospectively, given forecast airline schedules and meteorological conditions, and there may be days when there would be no flights over Homebush Public School, what is the maximum number of flights that are expected to pass over Homebush Public School on any given day?*

Homebush Public School is currently overflown from aircraft departing on Runway 34L Departures to the west from KSA. Based on historical data, approximately 80 aircraft movements to the west are expected on a representative busy weekday, whenever Runway 34L is being used. Runway 34L departure flight paths for aircraft heading to the west, north-west and east need to be altered to maintain separation with WSI flight paths.

Under the proposed changes to Runway 34L departures, Homebush Public School will be overflown by Runway 34L Departures to the west & east. Based on historical data, approximately 80 aircraft movements to the west are expected on a representative busy weekday, whenever Runway 34L is being used. Aircraft will continue to fly the same westbound track west, with aircraft more concentrated on the track centreline rather than being spread out. Typical aircraft altitudes will be similar to current operations, with some new fixed requirements. Aircraft will be between above 5,000 ft at Parramatta, and above 10,000 ft at Lapstone. For Runway 34L Departures to the east, based on historical data approximately 30 aircraft movements to the east are expected on a representative busy weekday, whenever Runway 34L is being used. This information is available when the address of the Homebush Public School is input into the Aircraft Overflight Noise Tool (select show Sydney and

Bankstown Changes, and Runway 34L Departures): Western Sydney International (Nancy-Bird Walton) Airport Aircraft Overflight Noise Tool (aerlabs.com)

Supplementary: it isn't obvious from your answer what will be average number, so can you distil it to one number?

16. *Prospectively, on average what is the noise expected at ground level (dB) at Homebush Public School due to aircraft flying over on the new flight paths, and what is that equivalent to (e.g. a passing truck)?*

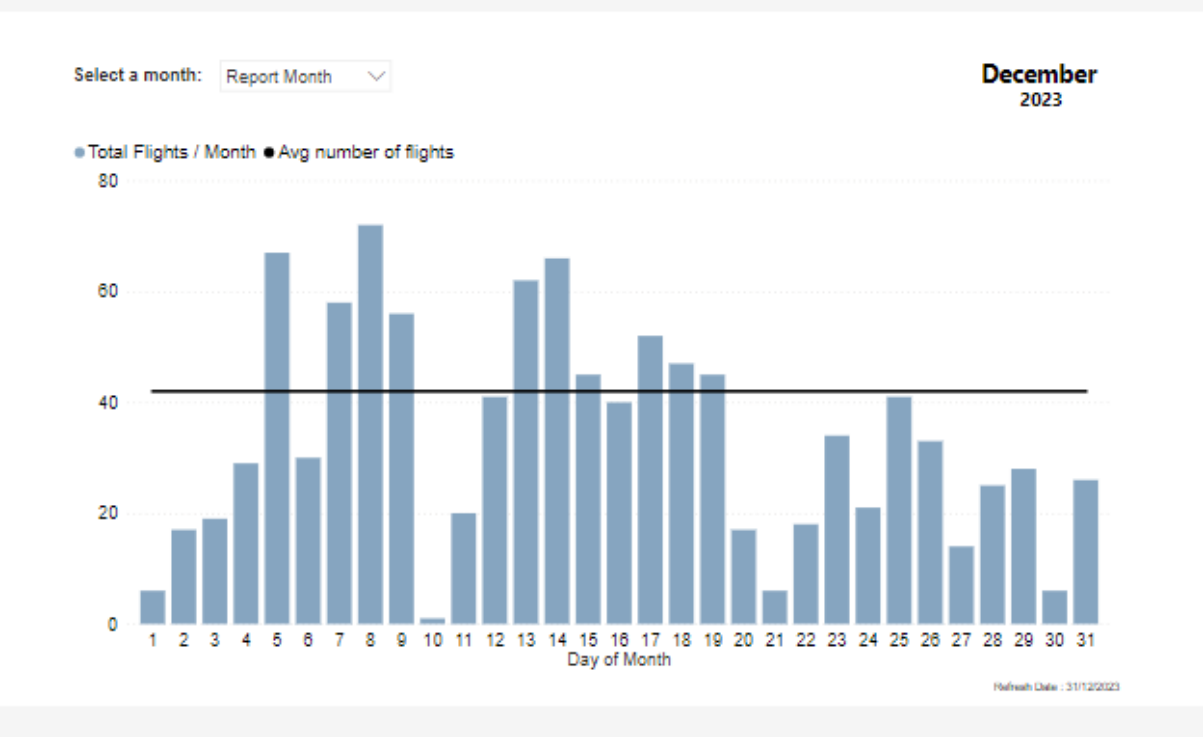
    Homebush Public School is not under any of the new proposed flight paths for WSI. It is however under proposed changes to Runway 34L departure flight paths for KSA, being Runway 34L Departures West and Runway 34L Departure East. For the assessment of the proposed changes to KSA flight paths, N60 and N70 noise contours were developed. Homebush Public School falls within the N70 noise contour for Runway 34L Departure West. This means the location is expected to get 10-19 noise events at above 70dB. The Homebush Public School falls within the N60 contour for Runway 34L Departure West. This means the location is expected to get 50-99 aircraft overflight noise events at above 60dB under the Runway 34L Departure West mode. The Homebush Public School also falls within the N60 and N70 noise contours for Runway 34L Departure East. This means the location is expected to get 20-49 aircraft overflight noise events at above 60dB and 10-19 overflight noise events at above 70dB under the Runway 34L Departure East mode. We recommend reviewing our noise brochure to find out more information about the Number above (N-above) contours Western Sydney International (Nancy-Bird Walton) Airport - Noise Assessment (wsiflightpaths.gov.au). You can also read more about the noise assessment for the proposed changes to KSA flight paths at Western Sydney International (Nancy-Bird Walton) Airport - Airspace and flight path design | Draft Environmental Impact Statement | Chapter 8 - Facilitated changes (wsiflightpaths.gov.au) and
    Western Sydney International (Nancy-Bird Walton) Airport - Airspace and flight path design | Draft Environmental Impact Statement | Chapter 21 - Facilitated impacts (wsiflightpaths.gov.au)and Western Sydney International (Nancy-Bird Walton) Airport - Airspace and flight path design | Draft Environmental Impact Statement | Technical paper 13: Facilitated changes (wsiflightpaths.gov.au)

Supplementary: it isn't obvious from your answer what will be average number, so can you distil it to one number and the equivalent?

17. *Prospectively, what is the maximum noise expected at ground level (dB) at Homebush Public School due aircraft flying over on the new flight paths, and what is that equivalent to (e.g. a chainsaw next door)?*

Supplementary: it isn't obvious from your answer what will be average number, so can you distil it to one number and the equivalent?

Historical data is available on the Airservices' Aircraft in your Neighbourhood website at https://aircraftnoise.airservicesaustralia.com/ by month. The graph below is from the site and shows the frequency of flights each day in December 2023 in Homebush. As you can see from the graph below, the daily number of movements can vary greatly.



18. *If the new flight paths for SYD are ostensibly about safety when WSI opens, why are the new SYD flight paths (eastern departures) being moved west and closer to WSI?*

> The proposed runway (RWY) 34L SHORE standard instrument departure (SID) has been designed to ensure that, with no air traffic control intervention, aircraft will remain separated within the Sydney Basin. The SHORE SID was created to separate KSA Runway 34L departures to the east, and flights inbound to WSI and KSA from the north. The SHORE SID was initially designed to align with the current Runway 34L Richmond SID, which is the SID that currently passes over Petersham. When this design was tested, it was found that aircraft were unable to meet the eastbound turn requirements further north in the flight path, as the turn was too tight to be flown accurately. The flight path was subsequently redesigned to align with an existing flight path, the Runway 34L SID to KADOM (Katoomba), which has an initial turn to the west. This alignment was chosen for both its flyability, and to enable compliance with the imperative to avoid changes to KSA noise sharing arrangements.

Supplementary: can you explain, in plain English, "enable compliance with the imperative to avoid changes to KSA noise sharing arrangements" as it appears noise is being diverted from the Grayndler to Reid?

> The flight path design team must consider the 12 airspace design principles set out in the Western Sydney Airport Plan. One of the airspace design principles is to not make changes to current noise sharing arrangements at KSA. The airspace designers prioritise safety when designing flight paths. The objective is not to divert noise from one electorate to another. Reid and Grayndler will both still be overflown by aircraft arriving and departing KSA.

Supplementary: We understand the response above to say the east-bound path was moved to the KADOM path because the current path would be too tight for the eastward turn under the new arrangements. However, to maintain noise sharing, shouldn't the west-bound path

then be moved to make way for the east-bound path? Are there flyability or other issues with moving the westbound path further south/west, or swapping the east and west bound paths where they pass over the inner west?

The proposed changes to KSA flight paths were designed to safely integrate the WSI control area and flight paths while providing for safe and efficient operations for all aircraft in the Sydney Basin. This means aircraft will be separated from each other according to the flight routes and the type of air traffic service being provided. If you have concerns about the proposed changes to KSA flight paths or have suggestions, we recommend you make a submission on the draft EIS. Submissions can be made up until the end of the day on 31 January 2024.

19. *If the new flight paths for SYD is about shifting noise to other areas, how is that equitable when people bought properties at a discount knowing about the noise (say, in Grayndler) and others bought properties of at a premium because there wasn't noise from SYD or the proposed WSI (say, in Reid)?*

    Changes to the Sydney Basin airspace are required to safely integrate the WSI control area and flight paths while providing for safe and efficient operations for all aircraft in the Sydney Basin (referred to as facilitated airspace changes). The introduction of new flight paths for WSI is also only seeking to change some KSA flight paths. There are aircraft that overfly the electorate of Reid that use other flight paths which are not being changed as a result of WSI flight paths.

Supplementary: in plain English, are you saying because of WSI some flight paths to/from SYD over Reid don't change, but others will?

Yes.

20. Homes and schools in Grayndler received sound insulation, will those in Reid get sound insulation?

    A draft Noise Insultation and Property Acquisition (NIPA) policy has been released as part of the draft EIS for aircraft noise from WSI. The electorate of Reid falls outside the guidelines of eligibility under the draft policy. For more information see https://www.wsiflightpaths.gov.au/pdf-documents/WSI-noise-insulation-policy-oct-23.pdf

Supplementary: in plain English, are you saying homes and schools in Reid will not get insulation?

The draft Noise Insultation and Property Acquisition policy is designed to address aircraft noise from Western Sydney International (Nancy-Bird Walton) Airport. More information on the draft policy is available here: https://www.wsiflightpaths.gov.au/pdf-documents/WSI-noise-insulation-policy-oct-23.pdf. A previous noise insulation program for KSA was completed in 2000.

21. *Given the following schools, how do you rank the impact of the new flight paths from bad to worst?*
    1. *Homebush Public School*
    2. *Marie Bashir Public School*
    3. *Homebush West Public School*
    4. *Meriden School*
    5. *Santa Sabina College*
    6. *Trinity College Prep school*
    7. *Homebush Boys High School*
    8. *Strathfield Girls High School*
    9. *St Patrick's College*

    In regards to your final question, the department is not in a position to rank impact on schools and as such cannot provide you with a response.