

Background:

- currently, from local observations, it appears that Homebush Public School would experience about one (1) noisy overhead flyover a day from Sydney Airport (SYD); and,
- prospectively, there will be new flight paths for SYD flights once Western Sydney International Airport (WSI) opens that affect Homebush, while WSI flights will have no impact.

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.

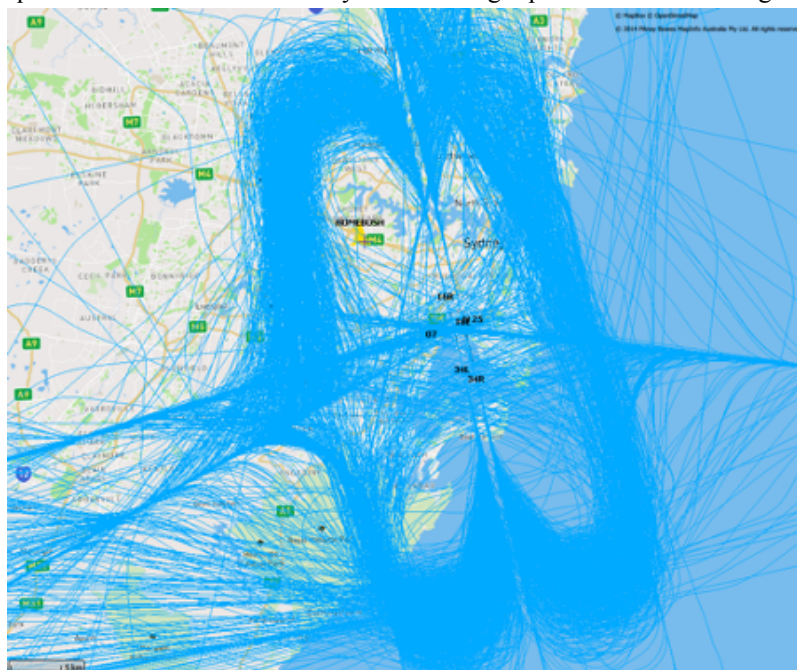
16L	2,420
16R	4,340
34L	2,963
34R	3,036
TOTAL	12,759

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?

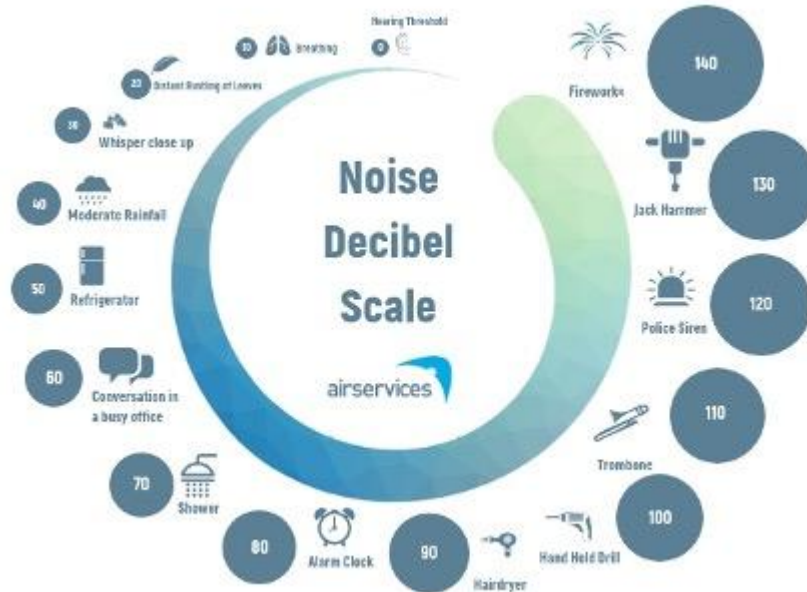
Unable to answer as we do not analyse this data and there are various factors that come to play such as weather conditions and aircraft type used by airlines. Monthly Sydney noise monitoring report is available on our Aircraft in Your Neighbourhood website <https://aircraftnoise.airservicesaustralia.com/> 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 a 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](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?? $\times 0.04=36$ ?*

*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 \(wsiflightpaths.gov.au\)](#)

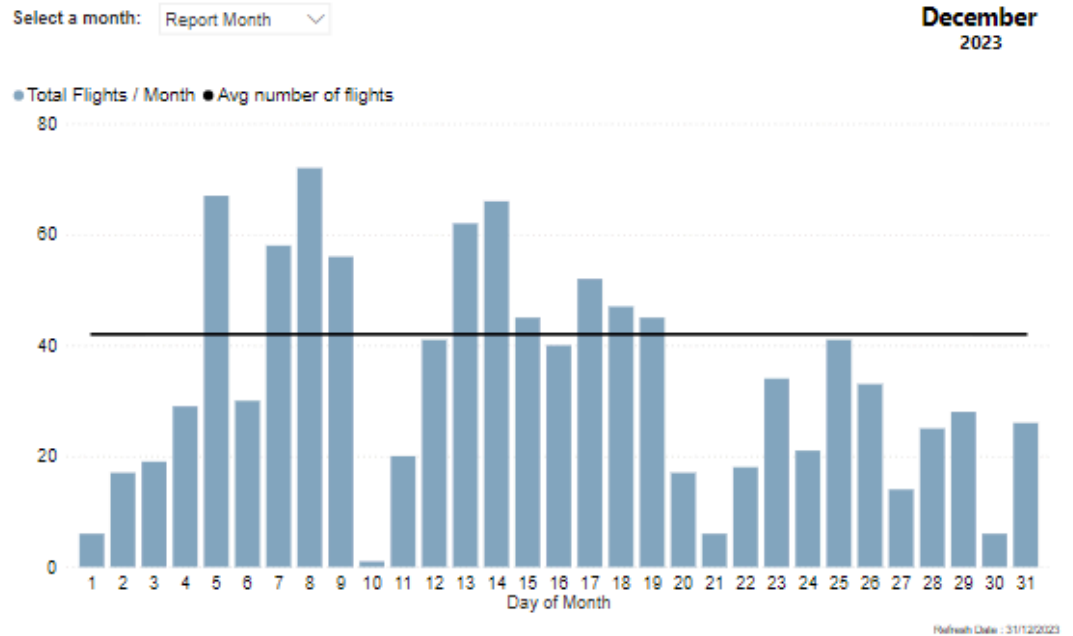
*Supplementary: it isn't obvious from your answer what will be average number, so can you distil it to one number and the equivalent?*

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 Insulation 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 Insulation 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.