

29thth January, 2024

RAWSA Submission in response to the 2023 Western Sydney Airport Flight Path Environmental Impact Statement

Community members represented by Residents Against Western Sydney Airport Inc. (RAWSA) make this submission to the Australian Government and Dept. of Infrastructure (DoI) outlining comments and advice as our submission to, the 2023 Western Sydney Airport Flight Path Environmental Impact Statement. RAWSA makes this submission in good faith and in the belief that the Department of Infrastructure should take action on the content of this submission.

This submission concentrates on the following aspects of the 2023 Draft Environmental Impact Statement for Western Sydney Airport:

1. The Genesis of WSA Flight Paths
2. True Extent of geographical areas affected by WSA Flight Paths
3. Constraints on Airspace Architecture
4. Discriminatory nature of WSA Flight Paths
5. Environmental impacts of WSA Flight Paths
6. Deficiencies of assessments that underpin Flight Paths for WSA
7. Alternative Flight Paths
8. Community requirements for the mandating of WSA Flight Paths
9. Conclusions on Draft EIS

Terminology used in this submission:

AsA	Airservices Australia
DoI	Dept. of Infrastructure, Regional Development, Transport, Commutations and the Arts
KSA	Kingsford Smith International Airport
The East	Areas of Greater Sydney including suburbs to the North, South, East, and Inner West of Sydney CBD
The West	Areas of Greater Sydney including the outer suburbs of Northwest, West and Southwest Sydney as well as the Blue Mountains and Wollondilly areas.
WSA	Western Sydney International Airport

1. The Genesis of WSA Flight Paths

In considering the 2023 Environmental Impact Statement (EIS) on Flight Paths for the Western Sydney Airport (WSA) it is necessary to look back at the process that underpins the current situation faced by residents that will be adversely affected by the design and operation of the flight paths.

When first announced 10 years ago, the decision to build the airport was made prior to a decision on flight path locations, prior to appropriate impact assessments being carried out, and contrary to decisions made twice beforehand, to abandon the airport plan due to the operational impact the airport flight paths would have on communities and the environment.

Despite these short-comings the government of the day, supported by the then opposition, forged ahead to build the project. The Department of Infrastructure (DoI) enlisted a number of strategies to establish a favourable public opinion of the airport, by;

- Promoting the project *as Western Sydney people deserving their own airport*,
- Producing multiple summarised glossy brochures, which:
 - Focused on the benefits of the project, with propaganda type exaggeration of employment estimates¹ that used job/year figure of 11,346 jobs to improve public perception of much lower real job numbers of 758 as estimated in the 2016 EIS, and
 - Down-played the adverse community and environmental impacts, and
- An unstated but clear Government assumption that affected communities should just roll over and accept the impositions caused by this government project.
- Using 'Cities Deal' funding to persuade Local Govts to change their previous long held view of opposing the airport.
- And being supported through an amalgam of self-interested business organisations, to constantly project an opinion of *"how wonderful the airport will be for Western Sydney!"*

We acknowledge that these strategies have been successful in getting the project to its current stage of construction and operation. However, these promotional efforts have reached their use by date and the realities of the situation are now becoming clear to impacted communities.

1.1 Reality coming to the fore

During the 1970s and 1990s debates over a proposed second Sydney airport, politicians and public servants actually gave credence to the opposing views of Western Sydney residents and twice abandoned plans to build the project. The main difference seen over the past two decades, is that in developing aviation policy and projects, governments have allowed themselves to be heavily influenced by industry demands, at the expense of Government responsibilities to protect people and the environment. The relevance of this observation is seen in the 2023 WSA Flight Path EIS, where the reality of various airspace constraints and no-fly zones have produced a less than optimal airspace architecture, devoid of fairness, minimal community considerations and inappropriate concern for the environment.

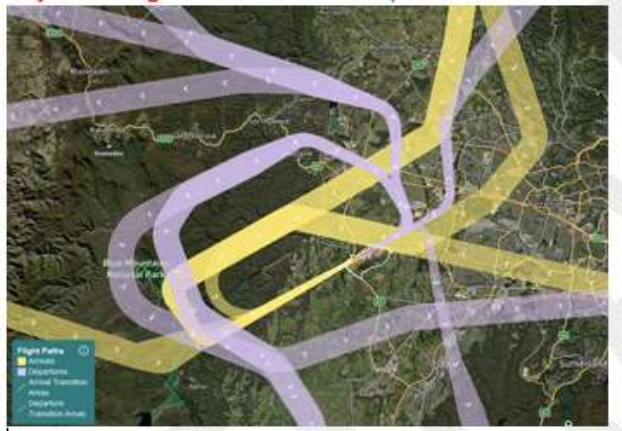
The basis of community opposition then, has not changed! While long-time local residents have always known, and newer residents are now becoming aware of, the impacts of this ill-conceived airport project, it is within the associated flight path design process that the focus of government officials to expand the aviation industry, is at the expense of their responsibilities to affected communities. The simple reality is – that with release of the EIS, flight path impacts are now coming to the fore in public opinion and will continue to do so, particularly from 2026 onwards.

¹ Department of Infrastructure and Regional Development, Brochure, '*An airport for Western Sydney – Building Western Sydney's future*', September 2016, publicly disseminated. Page 7

2. True Geographic Extent of Flight Path Impacts

The EIS Flight Path Maps below show the five different Flight Path configurations that Govt. is proposing to implement at WSA, depending on time of day, wind direction and hourly flight numbers.

When wind direction from a Northerly direction – operating **Day & Evening** from 5:30am to 11:00pm



When wind direction from a Southerly direction – operating **Day & Evening** from 5:30am to 11:00pm



When wind direction from a Northerly direction – operating **Overnight** from 11:00pm to 5:30am



When wind direction from a Southerly direction – operating **Overnight** from 11:00pm to 5:30am



Proposed Flight Paths operating **Overnight** from 11:00pm to 5:30am – but only in calm wind conditions



Not one of the maps can be considered in isolation, because they all must be viewed as having cumulative impacts over a wider area of N.W., Western, S.W. metropolitan areas, as well as the Blue Mountains and Wollondilly.

Note: Any one or all these flight path configurations could operate in any given 24 hour period – dependent upon time of day, wind direction and the number of flights per hour

To assess the true impact of the EIS Preliminary Flight Paths and to understand the geographical extent of proposed Flight Paths, RAWSA created an additional image that shows all five configurations overlaid on the one map.

Combined Flight Path Map - displaying all 5 Flight Path configurations



Although this map presents a confusing situation, its purpose is to clearly demonstrate the full extent of geographical areas impacted by the overall spread of flight paths. It is also important to highlight these are nominal paths that aircraft may fly. This does not account for the additional flight tracks that aircraft are actually permitted to take by air traffic managers, to increase airline profits through the reduction of flight distance and fuel savings – all under the AsA guise of environmental concern.

2.1 WSA Runway Orientation

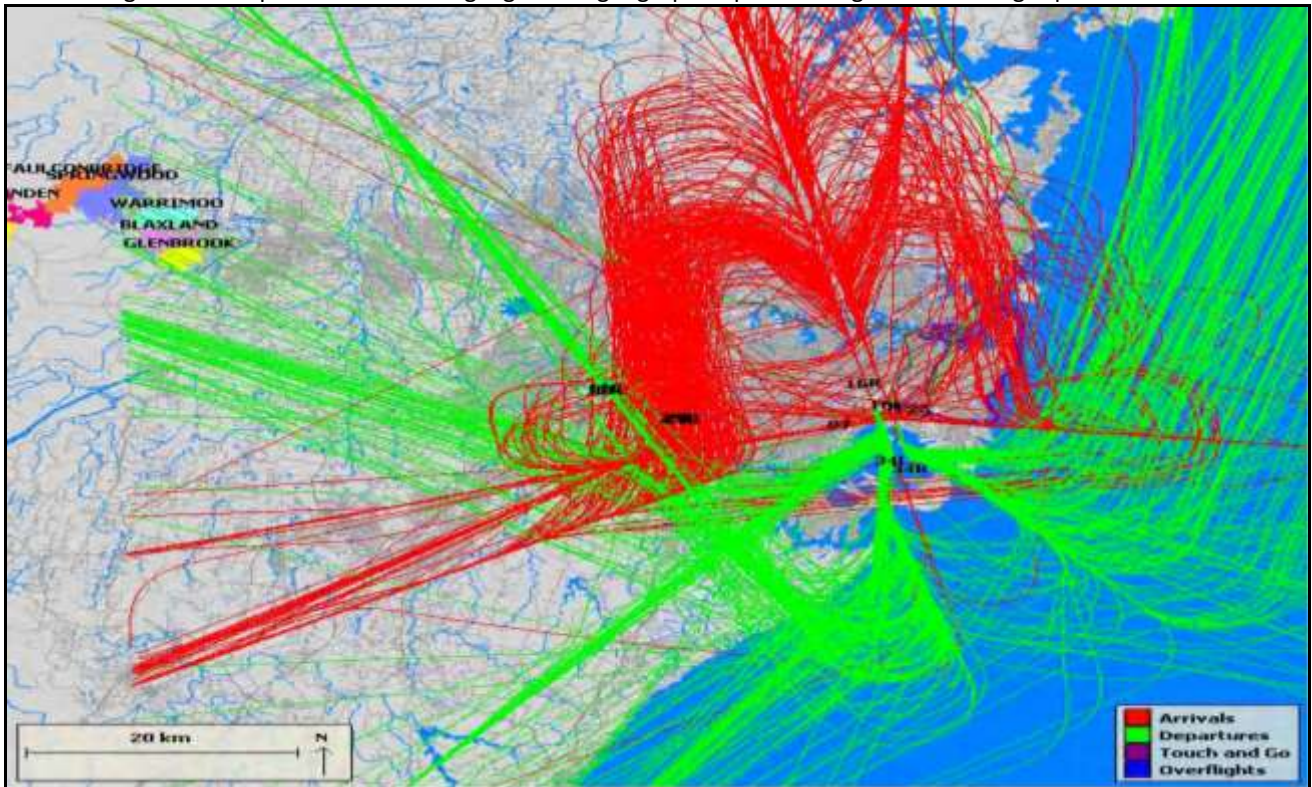
Due to the Northeast/Southwest orientation of the (at present) single runway at WSA, there is no avoiding flight path impacts for some suburbs. Residents in these suburbs will be affected regardless of time of day and regardless of wind direction which dictates, direction of aircraft landing and take-off. Note - any one or all of the 5 flight path modes can be in operation in any given 24 hour period.

2.2 Additional Areas Affected by Actual Flight Tracks

The 2023 Flight Path EIS is misleading in its representation of areas and populations that will be affected by aircraft operations. The custom and practice of Air Traffic Controllers (ATC) to allow aircraft to fly well outside the nominal Flight Paths is only touched upon briefly in the EIS and therefore does not adequately explain the true geographical extent of overflight areas.

In response to an earlier enquiry, Airservices Australia provided the following map to show actual tracks of aircraft operating out of Kingsford Smith Airport (KSA). When you super-impose these *types of flight patterns* over a map of *The West*, it becomes clear that the Preliminary Flight Paths in the EIS, do not adequately explain the wider implications for aircraft noise impacts over Western Sydney.

AsA provided Flight Tracks from Kingsford Smith Airport - red are arrivals and those in green are departures. A similar flight track map² in the EIS also highlights the geographic spread of flight tracks vs flight paths.



The AsA document explaining the 2020 Flight Path Design Principles, states:

It is important to note that, to ensure safety or due to operational requirements, aircraft may be cleared by air traffic control (ATC) to operate on routes other than the published flight path.

This AsA practice of giving permission (subject to safety) to pilots to fly their aircraft well beyond the nominal Flight Paths:

- Is designed to save aircraft flight time, flight distance and fuel use by flying a more direct route to the aircraft's destination.
- Is a well-established practice that reduces airline costs and increases airline profits
- Is now portrayed by AsA as an environmental consideration, and
- Does not account for added consequential impacts on residents or the natural environment.

Hold down Procedures³ in the EIS further extends the geographical area affected by Flight Paths and the community noise impacts. These WSA hold down procedures result in aircraft being deliberately held at attitudes lower than normally expected, to ensure safe aircraft separation on cross over flight paths from KSA.

Due to WSA not being operational, historic data was not available for WSA flight path determination so data for Brisbane were used as the most relevant. This does not provide confidence to western Sydney residents, given the adverse community reaction to Brisbane flight path outcomes.

Finding – The factors of geographic spread of nominal flight paths and the ATC practice of allowing flight tracks well outside the nominal paths, discussed in Section 2 of this submission undermine the overall credibility of the draft 2023 Flight Paths EIS.

² 2023 Draft EIS, Summary document, Figure 5.5

³ 2023 Draft EIS, Volume 3, Technical Paper1, Page 103

3. Constraints on Airspace Architecture

3.1 Identified Airspace Constraints

The 2016 WSA EIS identified a series of constraints that would affect the way airspace could be designed. The inevitable need for aircraft to overfly residences because of these constraints was fundamentally ignored, because the overall objective of building an airport, was the priority of Govt. These constraints repeated in the 2023 Flight Paths EIS, are now coming into play and result in less than optimum flight path outcomes for residents of *The West*.

The identified constraints⁴ include:

- Altitude and existence of the nearby Great Dividing Range
- The World Heritage listed Blue Mountains National Parks,
- Sydney's main water supply consisting of Warragamba Dam and Lake Burragorang
- The ANSTO Nuclear Facility at Lucas Heights
- Existing Bankstown and Camden Airports,
- The Orchard Hills Defence Establishment,
- The RAAF Military Base at Richmond,
- The Holsworthy Military Firing Range
- The airspace architecture for Sydney Airport (treated by Government as sacrosanct)
- Airspace for gliders, parachuting and ballooning.
- Airspace for transitioning flights.

These constraints, provided insight to the foreseeable impacts that WSA Flight Paths would have on *The West* – but the project went ahead despite these predictable impediments. Components of the Flight Path EIS acknowledge community overflights will occur due to these constraints but now the EIS classifies them as being 'unavoidable', under provisions of the 2020 Flight Path Design Principles.

We pose a question to DoI, AsA and indeed to Government:

“What right does the aviation industry have to expose citizens to such excessive levels of noise that any other industry would be prevented from generating?”

People's homes must be treated as additional constraints that should not be flown over, regardless of any cost impacts on the aviation industry.

3.2 Inadequate Assessment of Airspace Constraints & Affected Populations

With the decision to build its airport, there are a number of other important constraints, the impacts of which were either not identified by the Department or have been downplayed in the 2023 Flight Path EIS. Communities of *The West* will now suffer from this inadequate planning and foresight. These factors include:

- The real effect of increased aviation activity on both local and global climatic conditions – the airport has been placed in the centre of Sydney's *pollution basin* and scientific studies since 1985 show the diurnal nature of increasing pollutant concentrations.
- The additional pollution levels caused by increased aviation activity in *The West* is not acceptable to communities that already suffer the worst air quality in the Sydney area.

⁴ https://www.wsiflightpaths.gov.au/pdf-documents/WSI_EIS_Chapter_3_Introduction_to_airspace.pdf

- Additional poor health outcomes caused by increased aviation activity in *The West* is not acceptable in communities that already suffer from lower socio-economic health impacts. These aspects have not been factored into the consequential costs of this project on the public purse.
- With bushland vegetation replaced by vast areas of paved runway, taxiways and buildings, the airport itself will act as an additional 'Heat Sink' for *The West*, which is already renowned for experiencing the hottest temperature extremes in the Sydney region. This initial heat island will impact the surrounding region and will be exacerbated by future second runway plans. During periods of extreme temperature, this has the potential to impact the operations of heavier aircraft.

The design of airspace architecture in the 2023 WSA Flight Path EIS shows:

- While the safety of people travelling in aircraft is the first applied design principle, the safety of people (on the ground) residing in *The West* is the last consideration, behind design principles aimed at ensuring aviation efficiency and profits⁵
- An unsustainable additional contribution to aircraft related pollution levels that accelerate climatic extremes and weather related disasters,
- An unprecedented additional level of impact on residents of *The West*,
- Excessive overflights of the World Heritage listed Blue Mountains National Parks
- Unfair and unjustifiable discrimination of aviation protections for residents across the Sydney basin, in that:
 - The West continues to be impacted by overflights from KSA.
 - The East is protected from overflights from WSA.
 - KSA flight paths utilise 2/3⁶ of Sydney basin airspace to spread the noise impacts.
 - WSA flight paths are crammed into 1/3 of Sydney basin airspace where multiple constraints force aircraft noise and pollution to be concentrated in *The West* and therefore aircraft overflight impacts are disproportionate within the Sydney basin.
 - The minimal changes to KSA flight paths are insufficient as WSA flight paths are predicated on excluding change to KSA flight paths. This is also unjustifiable as it goes against the transition to *Flexible Use of Airspace*, introduced in 2019.

The EIS⁷ acknowledges that the impact on *The West* of continuing overflights from KSA as per:

"It should be noted that this assessment excludes any consideration of overflight [of western Sydney] by existing operations at Sydney (Kingsford Smith) Airport, Bankstown and Camden Airports or RAAF Base Richmond".

Finding - These factors highlight the need to redesign airspace architecture across the entire Sydney basin with fairer, less complex and safer flight path designs for both KSA and WSA

This requirement is further discussed in sections 4 and 7 of this submission.

⁵ The 2020 Flight Path Design Principles and other aviation policy documents disguise this objective under the term 'Operational Matters or Considerations'.

⁶ As displayed at DoI conducted Flight Path Information Sessions

⁷ 2023 WSA Draft Flight Path EIS, Volume 3, Technical Paper 1 Aircraft Noise, Section 9.6.6

4. Discriminatory nature of WSA and its Flight Paths

The 2023 Flight Path EIS supports the WSA Airport Plan which discriminates against residents of *The West*, compared to protections provided to residents of *The East* from operations of KSA. This discrimination is outlined in the comparison chart⁸ below.

Regulation Detail	Relating to Sydney Airport	Relating to Western Sydney Airport
Discriminatory Factor 1. Night time Curfew	Yes – Post WSA - No flights will be allowed from 11pm to 6am daily, giving eastern Sydney residents a 7 hour daily respite from aircraft noise and pollution. The current curfew exempt night time cargo flights will all be transferred to West. Sydney Airport	No - WSA will operate all day and all night, 365 days a year. There will be no respite from aircraft noise and pollution for western Sydney residents
Discriminatory Factor 2. Limit on flights per hour	Yes – limited to 80 flight movements per hour	No – No limits to flight movements per hour – Airport Operator has the power to decide the flight numbers per hour
Discriminatory Factor 3. Community protections from Airport Operating Plan	Yes – a legislative foundation exists for Sydney Airport’s Long Term Operating Plan which minimises community impacts	No – the Airport Operator has powers to decide operational limits on the basis of profitability, rather than public impacts
Discriminatory Factor 4. Community Impacts given importance in Flight Path Design and changes	Yes – Sydney Airport’s Long Term Operating Plan builds in community protections. Sydney Airport flight paths will not be affected by the new (2020) <i>Flight Path Design Principles</i>	No – the newly developed ‘Flight Path Design Principles’ place airline and airport efficiency (e.g. minimising fuel use and flight distances) ahead of any measures to minimise aircraft noise impacts on communities, which will only be a ‘ consideration where possible ’ after airline and airport efficiency measures are ensured
Discriminatory Factor 5. Ocean overflights to minimise community noise and pollution impacts	Yes – Sydney Airport’s Long Term Operating Plan builds in community protections by flights being directed to take off and land over the ocean as often as possible	No – there is no ocean in Western Sydney that can be used to adopt this noise and pollution mitigation strategy
Discriminatory Factor 6. Strategy to minimise Noise and Pollution through the spreading out of arrival and departure flights over a wide area of metropolitan Sydney.	Yes – Sydney Airport’s Long Term Operating Plan builds in community protections through its strategy to share aircraft noise across the entire Sydney metropolitan area. Although some minor changes have been made to KSA flight paths to accommodate operation of WSA, the spread of KSA flight paths over two thirds of the metropolitan area ensures that the sharing of impacts over a wide area is maintained	No – any attempt to try and implement a fair ‘noise sharing’ strategy will be ineffectual due to the nearby; Great Dividing Range; the risks to Sydney’s Water Supply Dam; the existing location of Sydney, Bankstown and Camden airport Flight Paths; the location and extent of World Heritage National Park and the existing restricted flight zones for RAAF Airbase Richmond and Military Facility at Orchard Hills. These factors all limit WSA noise sharing to less than a third of the Sydney metro area.’
Discriminatory Factor 7. Airport Community Forums open to public observation and scrutiny	Yes – the Sydney Airport Community Forum (SACF) meets 4 times annually and welcomes ordinary members of the public to attend and observe its open meetings.	No – the Forum on Western Sydney Airport (FOWSA) meets 3 times annually, is tightly controlled by the Dept. of Infrastructure and continues to meet in secret, repeatedly refusing to allow observation and scrutiny by ordinary members of the public

⁸ Chart information referenced parts of: WSA EIS; WSA Airport Plan; DoI - Fact Sheets, leaflets, website and Media Releases; Ministerial Fact Sheets and Media Releases; WSA Co website and Media Releases; AsA website and fact Sheets; and SACF meeting attendance, meeting minutes and documentation relating the KSA Long Term Operating Plan (LTOP).

4.1 Further Discrimination – The Curfew

Prior to the last election, Minister Paul Fletcher and DoI officials had repeatedly been asked to justify their support for WSA to operate 24/7 without a no-fly curfew. Their answers demonstrate an obfuscation of government responsibility to protect the well-being of its people in *The West*.

The first answer given was:

"Because it was always planned to operate without a curfew"

This answer is irrelevant and shows a clear lack of appreciation for the extensive population growth and residential development that has occurred over the last 70 years.

After some political pressure from affected communities, an additional answer was then given:

"Because a curfew would undermine the viability of Western Sydney Airport"

This additional answer highlights the:

- Lack of proper planning and risk assessment processes associated with the WSA project. The risk assessment process did not consider the commercial viability of the project, only the benefits that were over exaggerated⁹.
- Incorrect assumption, that affected communities would simply roll over and accept aircraft flying over their homes, all day and all night. The use of summarised glossy brochures and unvalidated posts on social media are nothing more than propaganda, trying to disguise impacts and influence public perceptions.
- Lack of prudence and responsibility by officials in building the airport before flight paths were defined and assessed. This is a direct impingement of the Government's duty of care responsibilities to its citizens.
- Intransigent attitude of officials on a curfew, which now infers the community is at fault, for insisting on a night-time curfew.
- Preparedness of former and current Governments to sacrifice the health, well-being, environment and amenity of residents of *The West*, for the sake of aviation profits. The potential loss of World Heritage status of the Great Blue Mountains National Parks is of great concern to citizens of Sydney, NSW and Australia.

ABC Online News - Posted 28 Jun 2023,

Blue Mountains mayor Mark Greenhill said the residents of Western Sydney should be entitled to a night-time curfew.

"It's alright for Sydney to have a curfew, but not all right for us to have a curfew," he said.

"So we feel like second-class citizens. We should be treated the same way as everywhere else."

Additionally, it is counter-intuitive to suggest that the financial viability of WSA would be undermined by implementing a night time curfew, as there is no evidence to suggest that Adelaide, Essendon, Gold Coast and Sydney airports¹⁰ are not financially viable, due to their 11pm and 6am curfews.

Finding - Communities of *The West* affected by the proposed WSA Flight Paths demand the same protections afforded to communities of *The East*. An 11pm to 6am no fly curfew must be implemented for WSA.

⁹ Dr Ian Watson, Jobs for the West Report, published 2018, revised printing 2021 - www.ianwatson.com.au/pubs/watson_oleary_jobs_for_the_west.pdf

¹⁰ <https://www.airservicesaustralia.com/about-us/about-our-operations/airport-curfews/>

4.2 Further Discrimination - Political Expediency

The 2023 Flight Path EIS claims that *aviation efficiency* is one of the key factors in designing flight paths for WSA. The decision to quarantine KSA flight paths from major change is totally at odds with creating *aviation efficiency* within the Sydney basin.

The release of the 2023 WSA Flight Path EIS reinforces community views that the primary reason for the decision to operate flight paths on a 24/7 basis in western Sydney, was to neutralise the increasing business pressure to remove the *inefficient* night-time curfew at KSA.

The current Sydney curfew means that KSA only operates at 2/3rds of its potential efficiency, in order to protect constituents in the electorates of current Prime Minister Albanese and the previous four Prime Ministers (Howard, Abbott, Turnbull and Morrison). Affected communities view the decision to dump 24 hour flight path operations on *The West*, as being motivated by political expediency and self-interest, by politicians based in *The East* favouring voters in their own electorates from aircraft overflight impacts.

This plainly is a case of 'Affluenza'¹¹ demonstrated by political influencers from *The East* who have been strong advocates of 24/7/365 operation of WSA flight paths, including:

- MP for Warringah, Tony Abbott – then PM who announced the resurrected WSA project
- Ms Christine Forster (PM Abbott sibling) on City of Sydney Council pushing for a the three cities project and aerotropolis including the Airport as future development
- MP for Bradfield, Paul Fletcher – then Minister who approved the WSA project
- MP for North Sydney, Joe Hockey – ex influential Minister in Howard & Abbott govts
- MP for Wentworth, Malcolm Turnbull – ex PM who gave stewardship to WSA project
- Mrs Lucy Turnbull (PM Turnbull wife) on City of Sydney Council and CEO Greater Sydney Commission, pushing for a the three cities project and aerotropolis including the Airport as future development.
- MP for Sydney, Tanya Plibersek – ex Opp'n Dep. & current Env. Minister who supports WSA
- MP Anthony Albanese – current PM, who is the loudest supporter of WSA project, and
- MP Scott Morrison – ex PM who oversaw the commencement of the WSA project and who continues to complain about noise from the few freight flights permitted during KSA curfew.

Due to Media interest in the release of Flight Paths and the subsequent publicity given to members of the general public expressing their opposition to noise, health impacts, sleep disturbance and environmental concerns, we saw a predictable reaction from the "Yay airport" cabal who simply refuse to accept any comments highlighting that impacts of flight paths on the many, will far outweigh the benefits for the few!

Following are just some of the comments to demonstrate the biased mindset of airport proponents:
ABC Online News - Posted 28 Jun 2023, at 5:11am

Chief executive officer of the Western Sydney Leadership Dialogue, Adam Leto, stated:

"There are going to be a small handful of residents that are going to experience some noise, but I think it will only be minimal and it will only affect the handful of residents."

ABC Online News - Posted 8 Jun 2023

Even scarier was the picture painted by the airport's chief executive Simon Hickey when he said the airport was designed for growth. Mr Hickey went on to state:

"Over the decades ahead it'll actually become the same scale and size of JFK and Dubai."

¹¹ A single composite word to describe an influenza-like transmission of self-interested attitudes, spread by people from affluent areas, through their political, business and social networking activities.

Publicly stated comments from the current Minister for Transport, Catherine King, validate these community concerns and exposes the reason for a second Sydney airport is to preserve current protections of a curfew and flight caps for east Sydney electorates by operating unrestricted 24/7 flight paths in western Sydney:

ABC Online News - Posted 28 Jun 2023

"The reason we are even talking about having a second airport in Sydney is because of the constraints that are currently there on the curfew airport — at Kingsford Smith Airport".

Minister King has an opportunity to rectify this cynical inequity by providing the same protections of a curfew and flight caps for people of *The West*.

As was the case in the 1990s with the building of a 3rd Runway at Sydney Airport – the community backlash¹² about under-estimated flight path impacts, led to resident complaints and community action that resulted in the curfew at Sydney Airport being implemented and more recently, in distributed overflights to spread noise exposure..

The same under-estimated impacts are also the focus of community actions in Brisbane, Melbourne and Gold Coast over the adoption of a curfew for their respective airports.

4.3 Further Discrimination – Applying different design rules to WSA Flight Paths

The 2023 Flight Path EIS refers to the 2016 WSA EIS and the WSA Airport Plan in which reference is made on how the 2020 Flight Path Design Principles should be applied differently to KSA and WSA. There is not a consistent approach to AsA flight path design.

AsA designers pick and choose which principles they will apply in any given location, dependent upon the flightpath outcome desired by AsA.

Examples of the arbitrary and flexible application of the so-called Principles are quotes from the AsA document explaining the 2020 Flight Path Design Principles, as follows:

"The Principles apply to future changes and will not be applied retrospectively to flight paths that are currently implemented nor to projects that have commenced at the time of publication."

"The Principles do not vary the Long Term Operating Plan (LTOP) for Sydney (Kingsford Smith) Airport and associated airspace 5, 6 and in applying the Principles all LTOP requirements will be maintained."

4.4 Further Discrimination – Reciprocal Runway Operations

Additionally, with the release of the WSA Flight Path EIS, it becomes more apparent that *The West* is further discriminated against compared to *The East*, by the portrayal in the current EIS, of Reciprocal Runway Operations (RRO) at WSA, as being adequate justification for not adopting a curfew at WSA.

What becomes very apparent with the proposed WSA RRO configuration is the blatant avoidance of overflying *The East* at night when no KSA operations exist that would otherwise prevent this airspace being utilised. Again this configuration places additional noise impacts on *The West* in order that *The East* is protected from aircraft noise during sleeping hours.

This inequality is demonstrated in the following map series.

¹² Falling on deaf ears? / Report of the Senate Select Committee on Aircraft Noise in Sydney, [Parliamentary paper \(Australia. Parliament\) ; 1995, no. 345.](#)

Runway 05 Overnight

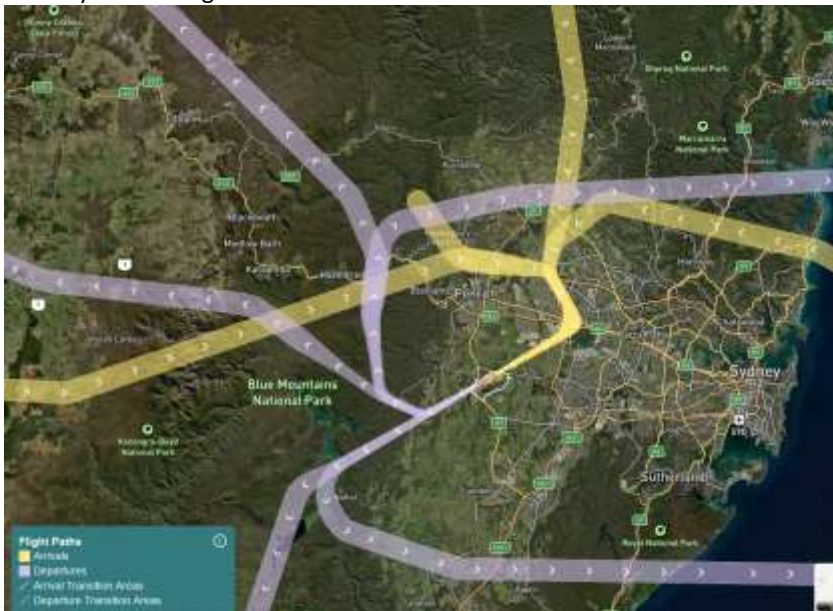


Top Map – Runway 05 Overnight, when winds are from a northerly direction

Flight Paths applying to 11pm to 6am overnight when no aircraft are operating into or out of KSA

There is a common feature within each of these 3 map images. DoI would prefer to send overnight flights over our Metro Southwest, West and Northwest as well as over the Blue Mountains and parts of Wollondilly, rather than use the airspace over the Metro East, South and North.

Runway 23 Overnight



Middle Map – Runway 23 Overnight, when winds are from a southerly direction

Flight Paths applying to 11pm to 6am overnight when no aircraft are operating into or out of KSA

Again, in this WSA flight path configuration, the airspace over the Metro East, South and North is treated as sacrosanct. This is grossly unfair, inequitable and totally discriminatory.

Reciprocal Runway Operations - Overnight



Bottom Map – Reciprocal Runway Overnight, when winds are minimal from any direction.

Flight Paths applying to 11pm to 6am overnight when no aircraft are operating into or out of KSA

Not only does KSA have an 11pm to 6am curfew, it seems inconceivable to the Dept. that any overnight flights from WSA could possibly pass over the Metro East, South and North.

The RRO mode at WSA may sound good in theory – however it has the following major limitations:

- RRO operations cannot be used when the number of aircraft movements (into & out of the airport) exceed a safe rate of aircraft movements per hour. Because RRO mode means departing aircraft will be heading toward arriving aircraft, a time lag between aircraft must be used to ensure safety. At best, RRO mode will have only short term application – as air traffic increases, safety issues will prevent RRO being used at all.
- Because aircraft must fly into the wind when landing and taking off (to maintain adequate aeronautical lift) RRO operations mode cannot be used when there is significant wind strength - in either direction.
- It places unfair disadvantage on residents in Southwestern Sydney, Macarthur and Wollondilly areas, who will suffer the worst aircraft noise impacts at night.
- Does not exclude noise impacts on other areas from being overflown at an increased altitude.
- The portrayal of RRO at WSA in the 2023 Flight Path EIS is a misrepresentation of the facts.

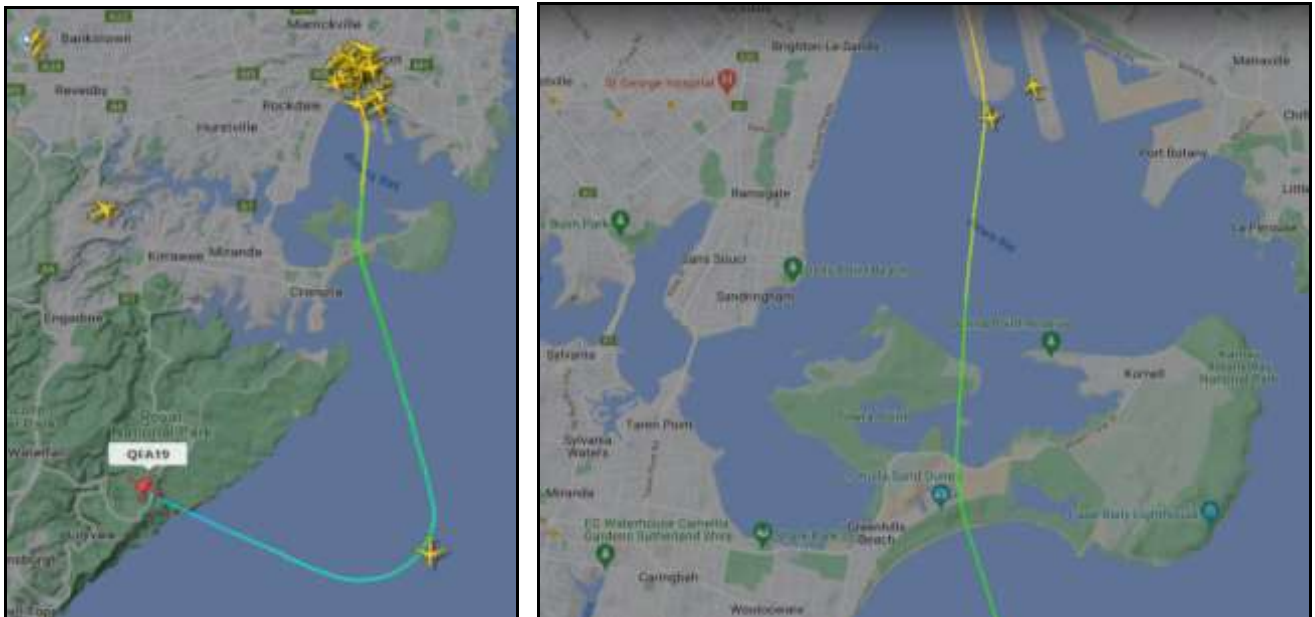
Finding - Due to these discriminatory limitations, implementing Reciprocal Runway Operations at Western Sydney Airport is neither a fair, equitable nor viable substitute for a curfew at WSA!

4.5 An alternative to RRO at WSA

RRO measures have been in place at KSA for many years resulting in overflight areas being restricted to the small population (2528 per 2021 Census) of the Kurnell Peninsula and thereafter, the Pacific Ocean. The proposed RRO for WSA cannot utilise over-ocean operations and substantially more adjacent residents (27,600 in 2033 and 84,500 in 2055¹³) will be affected by overflights from WSA than for KSA, where the potential growth of population on Kurnell Peninsula, is almost non-existent.

With the commissioning of WSA, the flights currently allowed to operate during KSA curfew hours will be transferred¹⁴ to WSA, thereby again alleviating impacts on *The East* and dumping them on a much larger affected population in *The West*. These are undeniable facts!

Radar 24 image of KSA related flight track – logged 12:52 hours to 12:55 hours on 28/12/23



¹³ 2023 Draft, WSA Flight Path EIS, Volume 3, Technical Paper 1, Section 9

¹⁴ Specified in WSA Airport Plan and other government documentation

These images clearly show that aircraft departing KSA (in a mode similar to RRO) overfly non-residential areas and totally avoid overflight of Kurnell residences.

Due to aircraft technology improvements in recent years, Kurnell will not be affected by RRO departure overflights and will only be affected by RRO arrival overflights.

Note: These population figures relate to areas affected by the nominal EIS Flight Paths only. The figures do not take account of the inevitable unknown variations of actual Flight Tracks (provided for in Flight Path Design Principles¹⁵), nor the future development (unplanned at this time of residential areas in *The West*, that will be affected by aircraft noise and pollution impacts in the future.

While the 2020 Flight Path Design Principles have major short-comings (highlighted elsewhere in this submission) the projected principles are to design and implement flight paths that minimise overflight noise impacts on the least number of residents. If Sydney really does need to have access to 24 hour aviation services (supposedly demanded by financial imperatives), then it is quite clear that Flight Path Design Principles would dictate that a curfew be instituted at WSA and the current curfew flight exceptions at KSA be modified in favour of extra RRO at KSA.

This submission does not in any way assert that populations in *The East* are not entitled to relief from the invasive aviation industry. Communities in *The West* are simply highlighting that KSA's location near the ocean, make current night time RRO protections at KSA very different to the effect of proposed RRO measures at WSA and are therefore not a valid justification for operating flight paths at WSA on an all-day/all-night 24/7/365 basis – without ANY relief!

The continued curfew at KSA and lack of a curfew at WSA will become more discriminatory over coming decades as the projected growth¹⁶ of aviation is realised and the planned second WSA runway becomes operational. This situation will be exacerbated by the proposed strong growth in population in the West as opposed to established suburban populations in the East. These factors together with the 2023 Flight Paths EIS, reinforce community views that the WSA project is ill-conceived and is a direct result of political expediency by both government and opposition parties which prior to 2014 saw, and continue to see, a 24/7 airport in Western Sydney as a counter measure against increasing pressure to lift the curfew at KSA.

Finding – That implementing a curfew on WSA Flight Paths instead of using Reciprocal Runway Operations overnight, will prevent more than 10 times the number of people in *The West* from being overflowed, than the 2500 residents in *The East* that would be affected by aircraft overflights if Reciprocal Runway Operations were maintained with extra flights from KSA. Overflight of Kurnell residents would only occur for arriving aircraft, not departing aircraft

¹⁵ The Western Sydney Airport Plan - Future airspace design principles, Principles 2 and 3

¹⁶ Detailed in 2023 Aviation Policy Review Green Paper

5. Environmental impacts of WSA Flight Paths

The EIS is technically deficient due to inconsistencies and inadequacies of assessment and it effectively advocates for the airport by downplaying, or being misleading, of the potential environmental impacts the airport is likely to cause.

5.1 Long lead time to solve aviation emissions

The 2023 Aviation Policy Review Green Paper has direct relevance to the 2023 WSA Flight Path draft EIS in that, the policy review document clearly *hangs its hat* on reducing environmental pollution by the future development and take up of Sustainable Aviation Fuel (SAF) initiatives.

These initiatives will have no effect in the short term to address current aviation pollution impacts which increases the *Climate Change* situation and *Weather Extremes*, that Australia and indeed the world are suffering from right now.

The SAF initiatives are speculative in nature as there is no evidence to suggest that, left to the influence of corporate financial motivations, the desired outcomes will be achieved. This undermines the attainment of Government objectives to reduce carbon emission to zero by 2050.

The facilitation of Flight Paths for WSA and the associated additional aviation activities only adds to a worsening environmental situation, both locally¹⁷ and globally.

5.2 Climate change

Australia is impacted by climate change at an increasing rate and we are already experiencing the effects of extreme weather events which are expected to increase further in occurrence, as the global warming effect continues into the future.

The EIS does not measure or analyse how the creation of the airport precinct will impact on climate change.

The airport itself is located in the hottest part of the Sydney basin and the associated paved runways, taxiways and buildings will act as a heat sink that will add to the temperature extremes in *The West*.

In various local studies and reports¹⁸

“Some parts of the country see wildly higher temperatures, especially during heatwaves, in areas known as ‘urban heat sinks’ or ‘urban heat islands’. Western Sydney is one such location, where the mercury can soar up to 10C higher during heatwaves, and where two 50C-plus days have been recorded.

The State of the Environment research¹⁹ revealed how a combination of factors is damaging the country’s natural world and wildlife populations.

*It also outlined the worsening conditions within urban landscapes, Environment Minister Tanya Plibersek said at the time. The report is a shocking document, Ms Plibersek said. It tells a story of crisis and decline in Australia’s environment and a decade of **government inaction and wilful ignorance.**” [Emphasis added]*

¹⁷ Evidenced by climatic events during this decade, that result in heightened frequencies of catastrophic bushfires, floods and temperature extremes

¹⁸ Molloy, Nine News, Nov 2023 - <https://www.news.com.au/technology/environment/australias-silent-killer-set-to-claim-thousands-of-lives-with-western-sydney-at-risk/news-story/db55738a220a837c4bef1f80f36252f8>

¹⁹ Australian Government, 2021, The State of Environment Report: <https://soe.dcceew.gov.au/>

The State of the Environment Report combined input from scientific, traditional and local knowledge, Indigenous and non-Indigenous people to create this first holistic assessment of the state of Australia's environment.

The report objectives were to help shape government policy and action to act responsibly as a steward of the Australian environment. The report overview quoted:

“Our environment is under extreme pressure. Read the report. Make an impact. Heal Country. Our future wellbeing and prosperity depend on it.” [Emphasis added]

These factors have direct and clear implications for expansion of aviation services that will occur as a result of aircraft operating along Flight Paths for WSA.

Additionally, the EIS does not measure or analyse the how the effects of climate change will impact on the efficacy and safety of flight operations at WSA.

5.3 Dubious EIS conclusions on aviation pollution

Depending upon the source (and any built-in biases), information about the extent and effect of aviation pollution can vary widely in associated studies. Regardless of these variations, consistent and undeniable conclusions are that aircraft engine emissions:

- Will grow substantially in line with the estimated increases of future aviation activity,
- Add to greenhouse gas levels, detrimental to the worsening situation of climatic changes,
- Are toxic, carcinogenic, and expose humans, plants and animals to undesirable adverse impacts, and
- Can affect health outcomes, sustainable habitats, reproductive outcomes and bio-diversity of species.

With these consistent conclusions that aircraft engine emissions are detrimental, the aviation industry and indeed this EIS²⁰, steer the discussion away from the undeniable, toward an assessment of the ‘degree to which aircraft emissions have an adverse impact’.

In doing so, the EIS uses a series of assessment measures that average emission levels over time periods of 1 hour, 24 hours or annually.

This dilutes the real impact of single event pollution impacts in the same way and with the same short-comings as averaging of maximum noise emissions discussed in Section 6.3 of this submission.

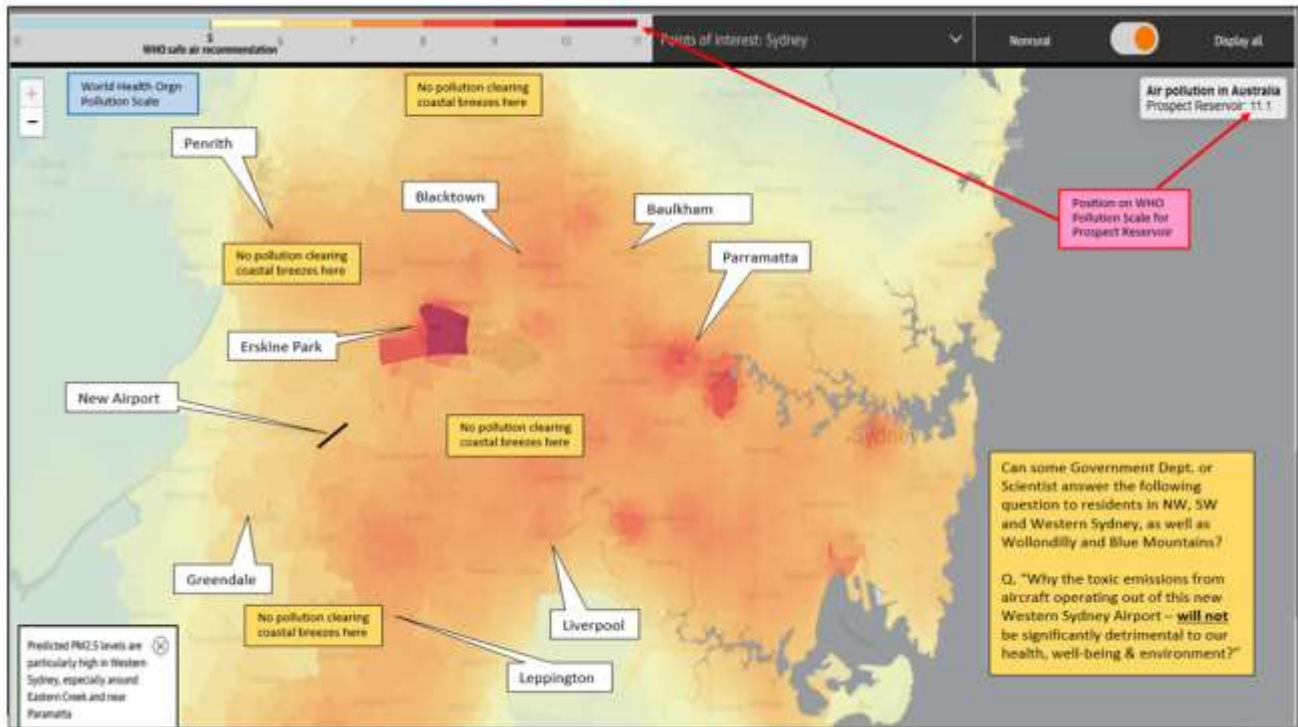
Therefore the EIS conclusions that pollution levels from operating the WSA Preliminary Flight Paths are within *acceptable limits or are negligible* – ignores the undeniable factors outlined above.

Consequently, aviation pollution levels will be additional to existing levels of pollution in a region that already experiences the worst pollution in the Sydney basin, as depicted in the map²¹ following.

²⁰ 2023 Draft, WSA Flight Path EIS, Volume 5, Technical Paper 2 & 3

²¹ Guardian Newspaper article: <https://www.theguardian.com/environment/ng-interactive/2023/may/04/air-pollution-in-australia-interactive-map-pm25-polluted-hotspots-search-postcode-suburb-where-i-live>

Image extracted 1300 hours on Sunday 7th May 2023 (Place names and comments added by contributor to submission)



Finding – Regardless of EIS conclusions which rate heat and pollution impacts as being within acceptable limits, - these factors are not an acceptable outcome for people living in *The West*.

5.4 Greater Blue Mountains World Heritage Listed National Parks

The Greater Blue Mountains World Heritage Area (GBMWhA) is a globally recognised natural asset containing over one million hectares with eight world heritage protected areas designated by the federal government as "Matter of National Environmental Significance".

Preservation of this globally recognised asset is an obligation of the federal government which is at complete odds with the operation of a 24/7 international airport with overflights that will cause negative impacts to its biodiversity and ecology.

5.4.1 Impacts on Flora and Fauna

The Greater Blue Mountains World Heritage Area (GBMWhA) is a globally recognised natural asset containing over one million hectares with eight world heritage protected areas designated by the federal government as "Matter of National Environmental Significance".

Impacts on flora and fauna have been inadequately studied especially by the absence of conducting field research to establish baseline impacts and instead using insufficient methodology of a desktop study. The EIS therefore provides insufficient guidance and assessment of these impacts, and this should be addressed before any further consideration is given to operations at WSA.

5.4.2 First Nations People.

The proposed flight paths will flight over and directly impact Traditional Custodian country by invasive visual and noise impacts over important Aboriginal cultural areas. Insufficient consideration and study have been given to these impacts on First Nations People and consideration of WSA should not proceed without full and proper consultation with them.

5.4.3 Bats

We support, and make reference to, the assessment made by the Blue Mountains World Heritage Institute²² extract of which is provide below.

“The Large-eared Pied Bat (Chalinolobus dwyeri), listed as a threatened species, may experience disruptions in foraging and communication activities due to 24-hour intermittent aircraft noise ranging from 75 to 65 decibels in GBMWhA habitats. Despite using ultra-high frequency sound for echo-locating, microbat calls are significantly impacted by lower frequency anthropogenic noise, including aircraft noise, affecting the range and acoustic frequency of their calls and, consequently, their foraging behaviour (Klett-Mingo et al. 2016).

We know that for microbats, the intensity and duration of calls are influenced by aircraft noise. The feeding “buzzes” of microbats decline with increasing aircraft loudness, especially when bats are overflowed (Wang et al. 2022). Persistent anthropogenic noise is known to reduce foraging bouts duration, hunting success, and increase foraging time in similar microbat species (Bunkley et al. 2015; Bunkley and Barber 2015; Simers and Schaub 2010). Call loudness and complexity also decrease when exposed to interfering noises, akin to aircraft noise, in other bat species (Jiang et al. 2019). An additional consideration involves the vulnerable Grey-headed Flying-foxes (Pteropus poliocephalus) residing in and using GBMWhA habitats within the 75 decibel, 70-65 decibel, and 65 decibel noise contours. Flying-foxes travel in large groups over substantial distances to access nectar and fruit resources (Parsons et al. 2008) in both the GBMWhA and residential areas in the Blue Mountains LGA. When undertaking their nightly commutes, Flying-fox species sometimes “thermal”, reaching high altitudes (Richmond et al. 1998). The significant altitude of their flight poses a potential threat, as Grey-headed Flying-foxes are at risk of direct strikes by aircraft flying over the GBMWhA. While acknowledging the remote nature of this risk, the Institute asserts that it is a possible known risk.”

5.4.4 Birds

We support, and make reference to, the assessment made by the Blue Mountains World Heritage Institute extract of which is provide below.

“Several bird species, including the critically endangered Regent Honeyeater (Anthochaera phrygia) and Swift Parrot (Lathamus discolor), are confirmed or likely to inhabit areas under all three noise contours. Scientific evidence indicates that persistent, intermittent anthropogenic noise can significantly alter the behavior of bats and birds, affecting their calling patterns and increasing vigilance time (Hart 2022; Klett-Mingo et al. 2016). The Regent Honeyeater, already facing habitat reduction due to land clearing, may risk abandoning noise-impacted habitats for foraging, potentially finding no other suitable habitat nearby. Many threatened birds, gliders, and frogs listed in Appendix 1 engage in complex social behavior with mates and chicks (Tobias et al. 2019), including territorial calling. Parrot species like the critically endangered Swift Parrot, the vulnerable Glossy Black Cockatoo (Calyptorhynchus lathami lathami), and the endangered Gang-gang Cockatoo (Callocephalon fimbriatum) exhibit intricate social lives.

²² An independent, not-for-profit Institute based in the Blue Mountains World Heritage Area of Australia, that conducts research, collaborates worldwide and engages with communities to develop innovative strategies for conservation and sustainability. It is a member of the [International Union for the Conservation of Nature](#)

Research suggests that persistent anthropogenic noise weakens the integrity of bird vocalisations, disrupting communications, including about territory (Kleist et al. 2016). These risks, relevant to birds, are also applicable to calling endangered Greater Gliders (Petauroides volans), vulnerable Yellow-bellied Gliders (Petaurus australis australis), and all frog species within the GBMWHa listed in Appendix 1. Given that the aircraft noise introduction to GBMWHa habitats will be permanent and irreversible (unless the airport closes) and given that the intensity of the noise will increase over time, the potential impact of the flight paths should be assessed as significant.”

5.4.5 Bird and Bat Strike

The Wildlife Strike Risk Assessment section of the Draft EIS is manifestly inadequate especially as it relates to flight paths over Warragamba Dam, the Burragorang Conservation Area (Warragamba Special Area) and the Blue Mountains National Park. The surveys conducted are inadequate with superficial and brief surveying.

The National Air Safety Framework (NASF) gives a strike risk rating as High Risk for Warragamba Dam (5.6 km from the Airport) and the Burragorang Conservation Area and Bents Basin (6.9 km from the Airport) but Avisure the Consultancy, that did the survey for this EIS report, has listed those areas as Low risk-and there is no reference to them having surveyed the Blue Mountains National Park.

Given the risk to aircraft travellers and the public on the ground, airport operations should not be contemplated on this scant review of the inherent risks of wildlife strike to aircraft.

5.4.6 Impacts on Blue Mountains Eco-Tourism

This EIS has not assessed the potential for negative impacts on Blue Mountains Eco-Tourism. Travellers from all corners of the globe visit the Blue Mountains because it is a globally recognised world heritage listed natural asset providing visitors with the ability to experience peace and quiet, world class natural wilderness and biodiversity and tranquillity.

The presence both visually and audibly of overflights will severely impact these inherent eco-tourism values and therefore would negatively impact on visitor numbers damaging a vital segment of the Blue Mountains economy.

The draft EIS quotes that “The increased access to key tourist destinations, in particular for tourists visiting areas such as the Greater Blue Mountains, is considered to outweigh the potential adverse amenity impact of the flight paths.” The EIS has made no research or made any studies to support this statement and it is nothing more than advocacy rather than a proper assessment of the environmental and economical impacts. A proper unbiased study should be conducted as part of this EIS, on the potential impacts on the eco-tourism in the Blue Mountains due to the operations of the 24/7 WSA airport.

6. Deficiencies of design and assessment criteria that underpin WSA Flight Paths

The EIS claims that impact assessment processes undertaken, are based upon ‘world best practice’ or are ‘consistent with international global practices’. There is no recognition in the EIS that this so-called world best practice has its foundations in historical adhoc arrangements that continued to be heavily influenced by the self-interest of the Aviation industry.

Assessment criteria used within EIS are not consistent with contemporary science based evidence. Communities therefore hold the view that the applied *world best practice* is more of an indictment of the flight path design process, than a justification for its application.

6.1 Deficiencies of 2020 Flight Path Design Principles

The design of flight paths for Western Sydney Airport will be guided by airspace design principles²³

Future airspace design principles

The following principles will apply to the comprehensive airspace design process for single runway operations:

1. Overflights of residential areas and noise sensitive facilities will be avoided to the maximum extent possible.
 - The most advanced satellite-based navigation technologies will be used to guide the design of flight paths that avoid residential and other noise sensitive areas as far as it is possible to do so.
2. Where flight paths are unable to avoid residential areas:
 - to the extent practicable, residential areas overflown by aircraft arrivals should not also be overflown by aircraft departing the airport; and
 - noise abatement procedures should be optimised to achieve the lowest possible overall impact on the affected community, taking into account safety and other operational factors.
3. Specific noise abatement procedures will be developed to minimise the community impacts of aircraft operations at night while not constraining airport operations and the economic benefits they would bring for Western Sydney.
 - When comparing options, operations that are conducted at night or on weekends will be treated as being more sensitive than those that occur during the daytime or on weekdays.
 - The use of head-to-head operations to and from the south-west when it is safe to do so is an important preferred option for managing aircraft noise at night. This preferred option will be thoroughly evaluated through further detailed assessment.
4. Noise mitigation measures will be developed consistent with Airservices commitment to aircraft noise management and the strategies developed by ICAO in its *Balanced Approach to Aircraft Noise Management*.
5. Aircraft arrivals will use a continuous descent approach where possible to keep aircraft at higher altitudes with low power settings and reduced noise (and greenhouse) emissions.
6. Aircraft arrivals will not converge through a single merge point over any single residential area.
7. Consideration will be given to the impacts of aircraft operations on natural and visually sensitive areas such as the Greater Blue Mountains World Heritage Area.
8. In determining the final flight paths, the community, aerodrome operators and airspace users will be consulted extensively and flight path designs will be subject to referral under the EPBC Act.
9. Changes to current noise sharing arrangements at Sydney Airport will be avoided.
10. Current airspace restrictions such as those associated with military establishments will be reviewed to improve efficiency and environmental impacts from commercial operations, while meeting Australia's future defence requirements.
11. The Australian Government will work with the New South Wales and local governments to ensure land use planning continues to prevent noise sensitive development in the highest noise exposure areas.
12. Safety is non-negotiable – only practical solutions that uphold Australia's long tradition of world-leading aviation safety will be implemented.

The frequent use of qualifying terms such as; “to the maximum extent possible; as far as is possible to do so; where possible” are ‘aviation favoured escape clauses’ built into Principles relating to protection of people and environments. No such ‘where possible’ qualifiers are included in principles that may impact other operational factors or constrain airport operations.

The terms; “taking into account other operational factors” and “while not constraining airport operations and economic benefits” make it quite clear that aviation profits are considered more important to Government and its Agencies, than adverse impacts on people and the environment.

²³ Extract from WSA Airport Plan

RAWSA challenges the legitimacy of AsA 2020 Flight Path Design Principles²⁴ on the basis that:

- AsA are misrepresenting the full truth behind a ‘consultation’ process in which, community advised outcomes and environmental impacts were ritually ignored.
- The principles are constructed around a framework which ignores the responsibilities of Government and its Agencies, to protect its citizens and environment from harm,
- Places airport and airline efficiency (profit making) ahead of people’s health, well-being, noise exposure, pollution generated and environmental impacts,
- Principles are influenced by misplaced allegiances of government agencies to the aviation industry, at the cost of impacting Australian communities.

These assertions are supported by the misleading and contradictory nature of 2020 Flight Path Design Principles and the Western Sydney Airport Plan, which underpin the 2023 Flight Path EIS. Under the heading of ‘DEVELOPMENT OF THE PRINCIPLES’ the AsA Flight Path Design Principles document states:

*“We have developed the Flight Path Design Principles (Principles) to provide a basis for designing and developing the flight paths that we will implement and operate. **They are the result of national consultation with community**, industry and government stakeholders, and are consistent with international global practices.”*

The above highlighted statement infers legitimacy of the Principles due to a process of national consultation. Communities affected by Flight Path impacts view this as a misrepresentation of the consultation process as:

- The consultation outcome did not include aspects of community concerns and protections which were the focus of numerous community submissions,
- It clearly resulted in achieving AsA desired priorities which favoured the aviation industry, and
- It resulted in an outcome that resembled a ‘tick and flick’ exercise.

Under the heading of ‘PURPOSE’ the AsA Flight Path Design Principles document states:

*“We need to manage the impacts of aviation activities and this requires a careful balance of ensuring safety, operational efficiency, protecting the environment **and minimising the effects of aviation noise on the community, wherever practicable.**”*

The above highlighted statement infers a balanced approach was taken in formulating flight path design Principles, when the reality is that:

1. Principles related to Aircraft Safety have the highest priority and are applied firstly (undisputed),
2. Principles related to Aviation Efficiency and Operational Matters (read profits) have the next highest priority and are applied secondly, (which affected communities do challenge)
3. Principles related to minimising people and environmental impacts have no priority - as they will only be considered - where practicable, when possible and only if Principles relating to Aviation Efficiency and Operational Matters, are not affected! (Also challenged by affected communities)

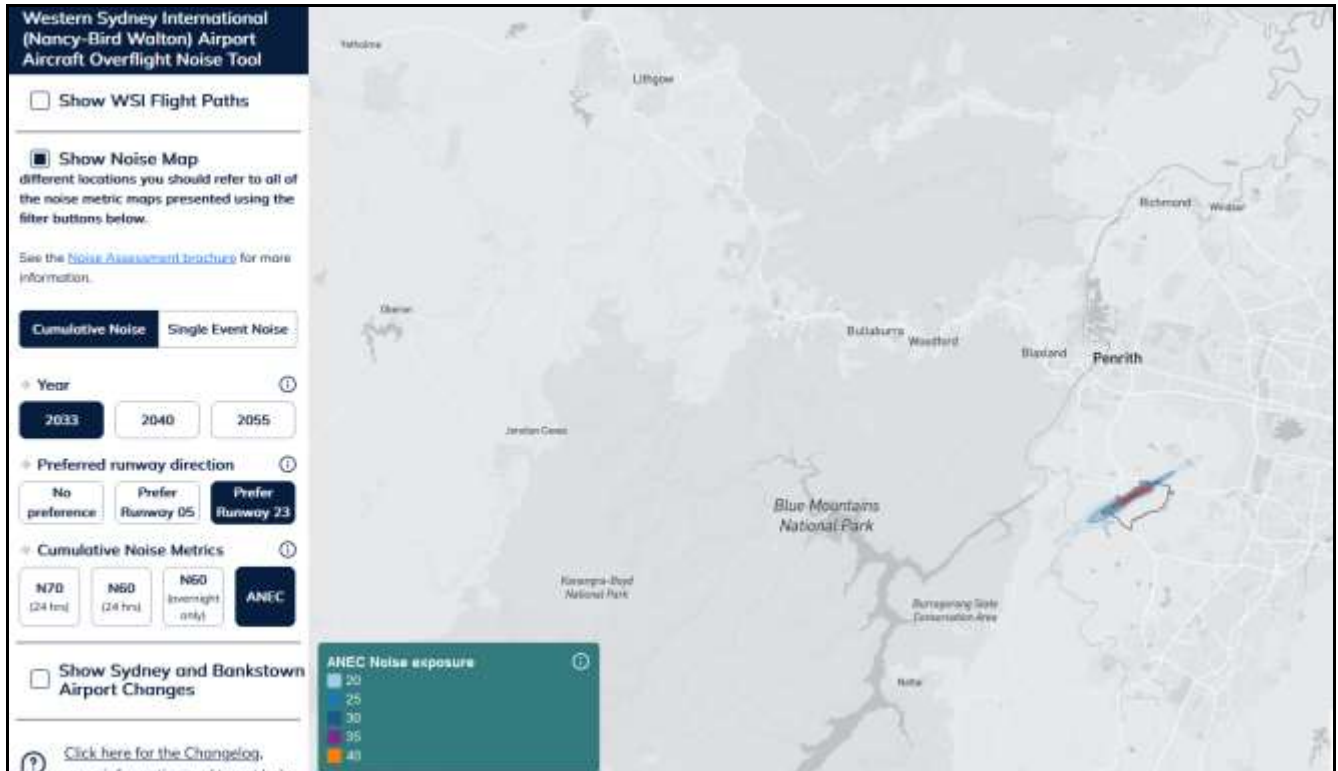
Finding – To achieve the ‘balanced approach’ claimed by AsA, it is necessary that the priority of Principles in points 2 & 3 above, must be reversed in the 2020 Flight Path Design Principles.

²⁴ Airservices Australia 2020 Page | 3 Flight Path Design Principles. And 2023 WSA Flight Path draft Environmental Impact Statement, Vol. 3, Technical Paper 1: Aircraft Noise

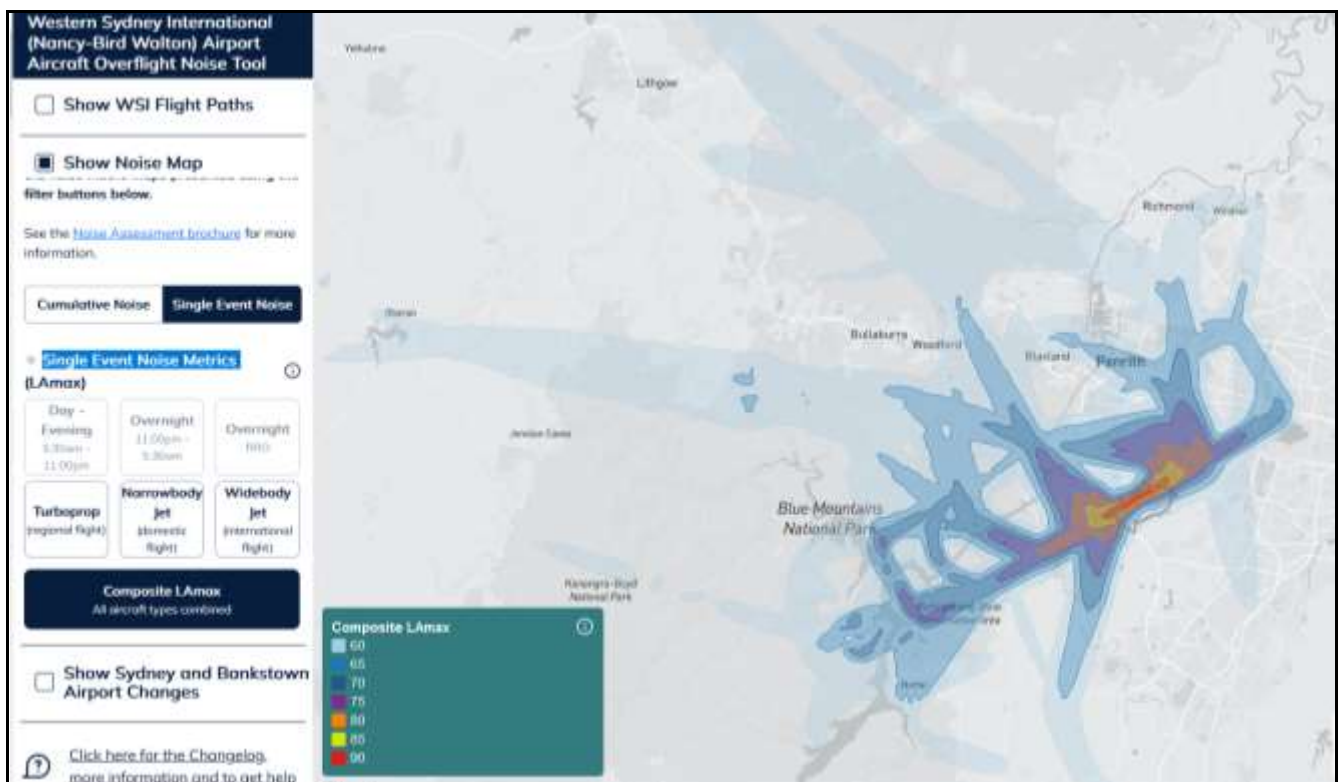
6.2 Deficiencies of the ANEF Criteria

The Australia Noise Exposure Forecast (ANEF) and ANEC contours may be useful for land use planning as per AS 2021. However this standard specifies that it should not be used as an indicator of aircraft noise. By including this metric in the Aircraft Noise Volume, the 2023 EIS uses this outdated system to infer relevance to in-flight aircraft noise impacts from WSA Flight Paths.

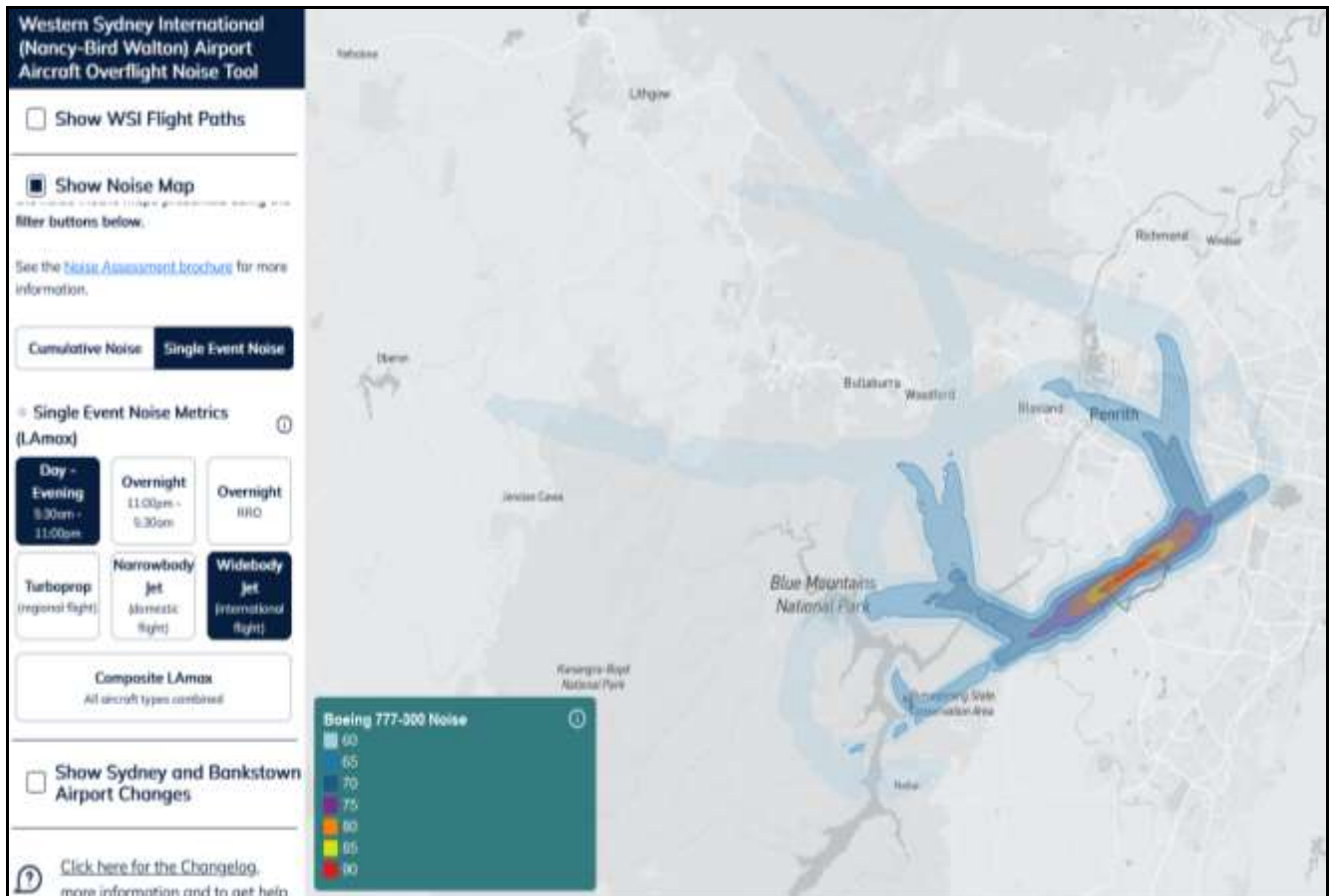
Map A - Extract from 2023 EIS on-line ANEC aircraft noise contour map. *(Consistent map scale)*



Map B - Extract from 2023 EIS on-line Noise Tool – showing noise contours for Single Event Noise of composite L_{Amax} for WSA Flight Paths. *(Consistent map scale)*



Map C - Extract from 2023 EIS on-line Noise Tool – showing noise contours for Single Event Noise of a wide bodied jet operating out of WSA during Day/Evening period. (*Consistent map scale*)



Comparison of ANEC noise contours in Map A with the noise profiles in Maps B and C, clearly demonstrate how the ANEF derived noise profile in Map A, is profoundly misleading. The inclusion of Map A in the 2023 Flight Path EIS documentation creates a misleading community impression that - if a residence is not within the Map A. contours, then the residents won't be affected by any aircraft noise. This is monumentally incorrect!

The preceding map series uses a consistent map scale so that people can easily discern visual comparison differences between the examples provided.

The EIS²⁵ has been inconsistent by using three different scaled maps when showing examples of:

- a) Figure 9.5 – Example N70 24 hour – composite scenario – 2055 (PAL 3). Uses a **10 km scale**
- b) Figure 9.7 – Example ANEC contour – composite scenario -2033 (PAL 1). Uses a **6km scale**
- c) Figure 9.9 – Example single event noise contour for Boeing 787-9 Day. Uses a **20 km scale**

Finding - Lay people within the community trying to work out and understand the aircraft noise impacts can be deceived by these varying map scales. This is an imprudent method of display and explanation, which adds unnecessary complexity and confusion for residents.

The following three map series taken from the EIS documentation demonstrates the inconsistencies and validate this finding.

²⁵ 2023 draft WSA Flight Path EIS, Volume 3, Technical Paper 1, Sections 9.4 and 9.5, Pages 74-77

6 km scale

[illegible]

20 km scale

24

The very definition used in the Airport Plan²⁶ highlights the reason for disassociating ANEF/ANEC from the process of informing aircraft noise impacts to the public where it states:

“ANEC charts are used to describe the potential noise impacts of proposed airport developments. They are calculated under Australian Standard AS2021 and represent a hypothetical future set of conditions at an airport. ANEC charts represent the average noise exposure from an average day’s ATM, calculated over a 12-month period.”

In his Submission to the 2023 Aviation Policy Review Green Paper, Dr Eric Ancich²⁷ recommended that:

“It is strongly recommended that the use of ANEF contours be abandoned or strictly limited to land use planning.”

Finding – To prevent confusion in the mind of the public, information relating to ANEF/ANEC explanations should be moved from EIS sections that infer relevance to estimating aircraft noise impacts.

6.3 Deficiencies of Noise Assessment Criteria

Apart from the use of the ANEF/ANEC criteria discussed previously in point 6.2, the 2023 Flight Path EIS continues the long challenged use of noise assessment criteria based upon the practice of presenting noise impacts in the form of decibels that are averaged over time.

This practice is challenged by communities and Acoustic Experts repeatedly in Submissions to Government Agencies and yet it continues to be used. For decades, this practice has systematically under-estimated projected noise impacts from aircraft and results in local resident outrage when subsequently, they are exposed to far worse noise than the EIS/Airport Plan modelling estimated.

In his Submission to the 2023 Aviation Policy Green Paper, Dr Eric Ancich²⁸ recommended that:

“Due to its paramount importance, it is recommended that L_{Amax} data be used to produce all N-above noise contours, are instantaneous maxima as defined by CANSO and the UK CAA.”

Examples of these discrepancies manifest themselves in community protest that has occurred with the Sydney Airport 3rd Runway and more recently in relation to aviation changes at Gold Coast, Sunshine Coast, Brisbane, Perth and Hobart Airports. RAWSA asserts that due to these deficient assessment processes, the same manifestations will be experienced with the WSA flight paths.

People do not have the capacity to hear averaged aircraft noise! Therefore the averaging of L_{Amax} noise levels in EIS methodologies to indicate the noise impact of single event flyovers, is an improper assessment criteria²⁹ that leads to inaccurate conclusions, upon which critical decisions are based.

²⁶ Australian Government, WSI Airport Plan, Revised, page 63

<https://www.westernsydneyairport.gov.au/sites/default/files/documents/wsa-airport-plan-variation.pdf>

²⁷ Dr Eric Ancich, Submission to 2023 Aviation Policy Review Green Paper, www.infrastructure.gov.au/sites/default/files/documents/agp2023-submission-p561-dr-eric-ancich.pdf

²⁸ Dr Eric Ancich, Submission to 2023 Aviation Policy Review Green Paper, www.infrastructure.gov.au/sites/default/files/documents/agp2023-submission-p561-dr-eric-ancich.pdf

²⁹ Dr Eric Ancich report to FOWSA and associated correspondence on methodologies used to estimate aircraft noise in the 2026 WSA EIS

This assertion is supported by WHO (World Health Organisation) ‘equal energy principle’ that states:

“The total effect of sound is proportional to the total amount of sound energy received by the ear, irrespective of the distribution of that energy in time.”

While ‘number above’ measures included in the EIS improves (on some levels) information about aircraft noise impacts, the EIS only includes a) contours for the number of flights where above 70 decibels (N70) will be experienced and b) contours for the number of flights where above 60 decibels (N60) will be experienced.

The decision to exclude N contours for lower decibel ranges, seems to be arbitrary as no evidence could not be found within the EIS for excluding contours for lower N50 and N40 aircraft noise metrics.

By excluding these contours, the objective of defining the ‘Geographic extent of noise envelopes’ inhibits the process to create runway operating scenarios and computer modelling of noise envelopes as displayed in the EIS³⁰

Finding – To explain the full geographic impact of aircraft noise, it is imperative the WSA Flight Path EIS also includes contours showing the number of flights above 50 decibels (N50) and the number of flights above 40 decibels (N40).

6.4 Deficiencies of Health Assessment Criteria

The Health Assessment criteria used within the EIS are not consistent with contemporary science based evidence. There is ample international research³¹ that highlight the adverse health outcomes for people exposed to aircraft noise – but our Government and its Agencies, along with the aviation industry, continue to ignore this scientific based evidence.

This results in assessments within the 2023 Flight Path EIS that conclude aircraft emission impacts are minimal or within acceptable limits.

Throughout the EIS there are multiple references for the need to align with the regulation, guidelines and recommendations of the UN based ICAO (International Civil Aviation Orgn).



At the same time the EIS ignores the recommendations of the UN based WHO (World Health Orgn) on limiting the exposure of residents to aircraft noise.

The 2018 WHO Noise Guidelines³² recommends that residents should not be exposed to aircraft noise events above 45 decibels during the day and residents should not be exposed to aircraft noise above 40 decibels overnight.

³⁰ Australian Govt., 2023 draft WSA Flight Path EIS, Volume 3, Technical Paper 1, Section 8.2, Figure 8.2 Page 52

³¹ USA Government, National Library of Medicine, Aviation Noise Impact; State of the Science Report: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5437751/>

³² <https://iris.who.int/bitstream/handle/10665/279952/9789289053563-eng.pdf?sequence=1>

 World Health Organization <small>REGIONAL OFFICE FOR Europe</small>		Environmental Noise Guidelines for the European Region	
 Aircraft noise			
Recommendation		Strength	
For average noise exposure, the GDG strongly recommends reducing noise levels produced by aircraft below 45 dB L_{den} , as aircraft noise above this level is associated with adverse health effects.		Strong	
For night noise exposure, the GDG strongly recommends reducing noise levels produced by aircraft during night time below 40 dB L_{night} , as night-time aircraft noise above this level is associated with adverse effects on sleep.		Strong	
To reduce health effects, the GDG strongly recommends that policy-makers implement suitable measures to reduce noise exposure from aircraft in the population exposed to levels above the guideline values for average and night noise exposure. For specific interventions the GDG recommends implementing suitable changes in infrastructure.		Strong	

The WHO Guidelines address not only health impacts of hearing loss, but also health impacts relevant to psychological and physiological distress. The Guideline document states:

“Exposure to noise can lead to auditory and non-auditory effects on health. Through direct injury to the auditory system, noise leads to auditory effects such as hearing loss and tinnitus. Noise is also a nonspecific stressor that has been shown to have an adverse effect on human health, especially following long-term exposure. These effects are the result of psychological and physiological distress, as well as a disturbance of the organism’s homeostasis and increasing allostatic load (Basner et al., 2014). This is further outlined in the WHO narrative review of the biological mechanisms of non-auditory effects (Eriksson et al., 2018).”

While the WHO Guidelines were compiled for the Europe region, recommendations can also be related to other global areas as stated following:

“The guidelines are published by the WHO Regional Office for Europe. In terms of their health implications, the recommended exposure levels can be considered applicable in other regions and suitable for a global audience, as a large body of the evidence underpinning the recommendations was derived not only from European noise effect studies but also from research in other parts of the world – mainly in America, Asia and Australia.”

A Government Brochure³³ emphasised the participation and influence that Australia has on the International Civil Aviation Organisation (ICAO) where it stated:



“Australia has a long history of active participation in ICAO towards setting global standards and guidance for civil aviation safety, security, efficiency and environmental sustainability.”

³³ Australian Government, Canberra, Australia and Global Aviation, 2014

The Brochure goes on to state:

“Australia has been a member of ICAO’s governing Council since its formation in 1947, with consistent election to Part 1 – States of Chief Importance in Air Transport. In addition to Council representation, Australia is a member of the Air Navigation Commission and maintains an office at the ICAO headquarters in Montreal, Canada.

Australia actively participates in and makes a significant technical and leadership contribution to ICAO’s major work. Australia is involved in more than 60 ICAO committees, panels and study groups including the panels dealing with dangerous goods, air transport regulation, aerodromes, air traffic management requirements and performance, separation and safety, and flight recorder matters.”

These statements demonstrate that rather than being *subservient* to ICAO recommendations and guidelines as suggested in the 2023 WSA Flight Path EIS, Australia could if it chose, be a leader in adopting the WHO guidelines relating to Environmental Noise. This would then be consistent with the assertions in the Brochure, of Australia making significant technical and leadership contributions to ICAO’s major work.

Finding – The WHO Environmental Noise Guidelines are appropriate for application in Australia and must be incorporated into the 2023 WSA Flight Path EIS.

6.5 Deficiencies in time allowed for response

While it is acknowledged that Preliminary Flight Path maps were released early by the Minister, it has taken 7 years by DoI to develop Preliminary Flight Paths and release the EIS. This time frame indicates the size and complexity of the EIS itself, with thousands of information and analysis pages. Planned release of the EIS was delayed on three occasions³⁴ due to the enormity of the task.

However, the community is provided with just 3 months to read, absorb, assess and respond with submissions. When challenged at information sessions, Department officials responded by statements to the effect that this is longer than is required by the regulation. As was the case with the 2015 Airport EIS and despite assurances³⁵ to the contrary, the EIS response period included the Christmas and New Year holiday period. This effectively reduced the response period by a month.

This is viewed by communities as a cynical strategy to try and minimise input and reduce the number of submissions. It is also an indication of Government and Agency attitudes against the right of citizens to express their genuine concerns and achieve comprehensive improved outcomes.

6.6 Disclaimer undermines EIS credibility

The ‘*get out of jail free*’ clauses in the Disclaimer toward the front of the EIS undermine the validity, accuracy and credibility of the EIS and render its content as unreliable and irrelevant!

³⁴ As advised in DoI correspondence, Media and Social Media posts and MP answers to posed questions on release delays

³⁵ From both the Minister’s office and from officials at information sessions

The Disclaimer highlights the obfuscation of Government decision makers to their duty of care responsibilities to the Australian public.

Additionally, the Disclaimer neutralises the efforts of some genuine DoI staff who attended information sessions and who approached this task in a professional and dedicated manner.

Disclaimer

This draft EIS has been prepared by, or on behalf of, the Commonwealth in accordance with the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and the Guidelines for the content of a Draft Environmental Impact Statement – Western Sydney International Airport – Airspace and flight path design issued on 26 April 2022 and reflects the preliminary flight paths. Some of the information is illustrative or conceptual only, includes statements as to future matters which may not eventuate, and has been based on opinions and assumptions which may not be correct. The actual flight paths, aircraft movements, noise contours and aircraft noise over specific addresses may be different to that shown in the draft EIS.

The Commonwealth, its contractors and the respective data custodians make no representations or warranties as to the accuracy or completeness of the data, maps, statements or other information (including from third party sources) contained in this draft EIS. To the extent permitted by law, the Commonwealth, its contractors and the respective data custodians disclaim any and all liability whatsoever arising directly or indirectly from anything done or omitted to be done, or directly or indirectly from any use of, or reliance on, the data, maps, statements or other information contained in this draft EIS by any person for any purpose.

To the extent permitted by law users of this draft EIS release the Commonwealth, its contractors and the respective data custodians from any and all liability (including for negligence) arising directly or indirectly from any use of, or reliance on, the data, maps, statements or other information contained in this draft EIS, by themselves or any other party.

Finding – The content of this Disclaimer makes affected communities wonder why the EIS process and documentation was undertaken at all.

7. Alternate WSA Flight Paths

7.1 2023 EIS treats KSA Flight Paths as sacrosanct

As described in the 2023 EIS, the term ‘flight path’ is used to refer to the mapped three-dimensional corridor within which aircraft flying under the Instrument Flight Rules (IFR)¹ are expected to operate most of the time. Flight paths can be a number of kilometres wide, rather than the single lines depicted on flight charts (maps).

Aircraft may fly differently within these corridors for a range of reasons, including aircraft performance (including type, speed and weight), and navigation systems.

Aircraft may deviate from flight paths for a range of reasons, including weather and operational requirements³⁶. In controlled airspace², this will be at the approval of air traffic control (ATC).

³⁶ Operational requirements are unspecified terms that include frequent ATC permissions for aircraft to divert substantially from nominal flight paths, for the purpose of reducing flight time, flight distance and fuel use. In other words increase airline profits, regardless of additional noise impacts for affected residents and local environments.

Government, DoI and Airservices clearly prefer to cram WSA Flight Paths into a third of the Sydney basin airspace and thereby only affect *The West*, rather than inhibit KSA Flight Paths and the inevitable reduction in noise sharing arrangements that currently favour *The East*.

Section 4 of this submission details the discriminatory nature of the EIS Preliminary Flight Paths. This section of our submission describes how the outcome of arbitrary decisions by policy makers adds additional punitive impacts on *The West* due to the:

- Refusal by DoI to redesign the entire Sydney airspace,
- Fundamental unfairness of treating KSA Flight Paths as sacrosanct, and
- Added unnecessary burden on the West in order to maintain a wider spread of KSA impacts.

The 2023 EIS incorporates some changes to KSA Flight Paths due to safety reasons, however, these changes are minimal and do not go far enough in applying an equitable approach to the flight paths for both WSA and KSA.

7.2 Conceptual Alternate Flight Paths

RAWSA calls for equal treatment of flight paths for both airports by an immediate total redesign of the entire Sydney basin airspace and offers conceptual airspace design alternatives.

These alternate conceptual Flight Paths are constructed around the following Principles:

1. Principles related to Aircraft Safety have the highest priority and are applied firstly – and remove the current unnecessary complexity of KSA and proposed WSA, flight paths,
2. Principles related to minimising people and environmental impacts have the next highest priority and are applied secondly – to people and environments affected by all flight paths,
3. Principles related to Aviation Efficiency and Operational Matters are applied thirdly, but only where possible, when practicable and only if Principles relating to people and environmental impacts are not affected!

RAWSA has liaised with Dr Anthony Green³⁷, a locally based Scientist, who has developed a series of conceptual flight paths for his personal submission on the draft WSA Flight Paths EIS. RAWSA is very thankful to Dr Green for allowing us to preview his comprehensive submission and with his permission, we have included some of his work so that in its own submission, RAWSA can better conceptualise a system of alternative airspace architecture for the entire Sydney basin.

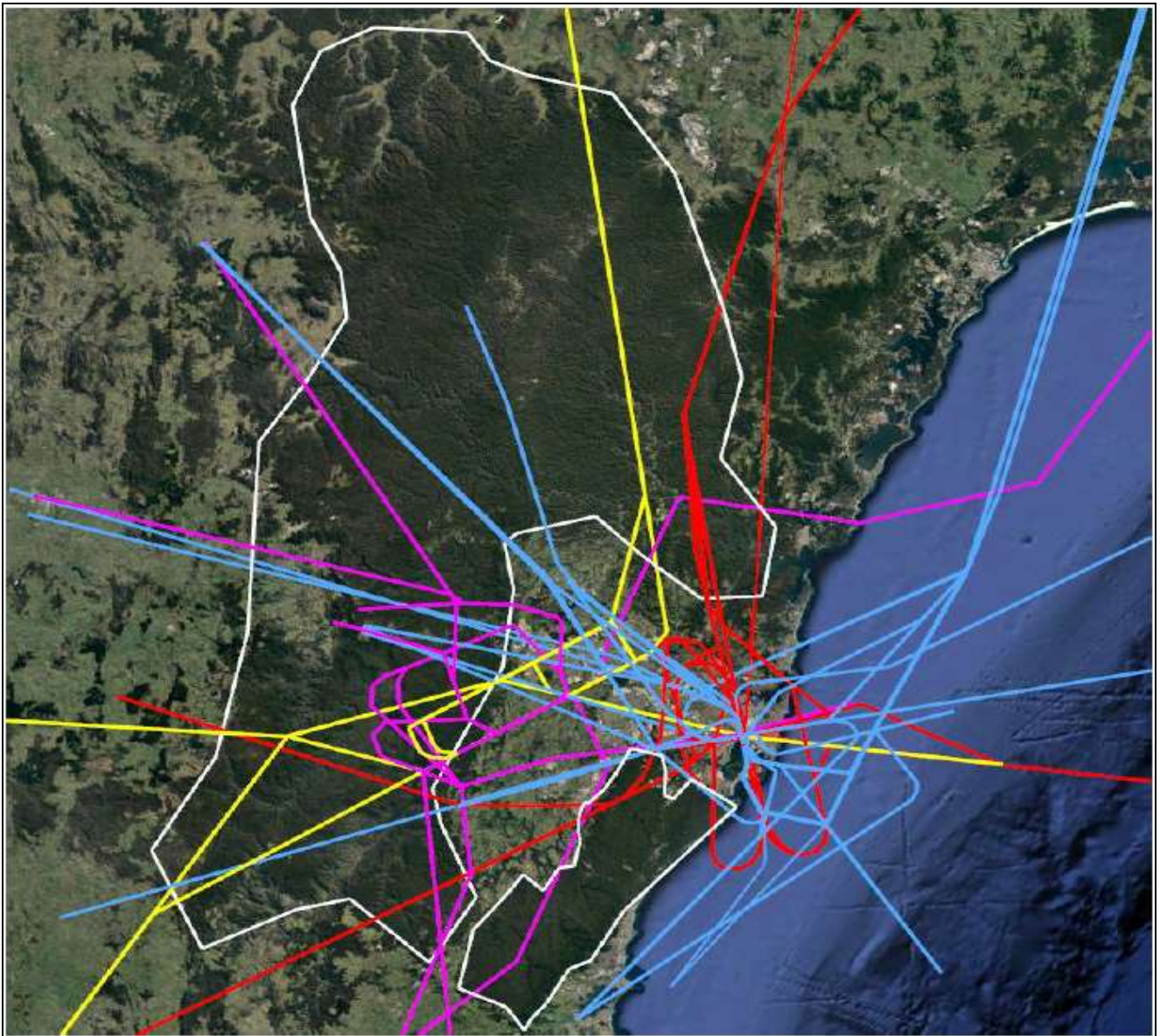
The EIS *Disclaimer* makes it quite clear that no reliance can be placed on EIS content, accuracy or completeness. This inference is consistent with other aviation documentation and advice from DoI staff at Information Sessions that readers should consult with independent experts for advice. Dr Green is such an expert and in referencing his work, RAWSA has taken the DoI advice.

The existing flight paths for KSA are unnecessarily complex and the EIS proposed design of flight paths for WSA add another level of complexity to the management and operation of airspace within the Sydney region.

³⁷ DR Green is a scientist with four decades experience in risk assessments across many Australian industries and with experience in laboratory analysis for forensic investigations. He has published widely, presented at international conferences and taught risk in academic institutions over three decades. In aviation he commenced work in risk assessments in 1995 and has regularly been involved in meetings, consultations and commissioned work by government and non-government organisations and industry sectors

RAWSA suggests this complexity is the result of a misplaced focus, by government agencies and airspace designers, on minimising flight distance and time (airline profits) rather than minimising adverse resident and environmental impacts as a more important priority.

Courtesy of Dr Green³⁸, the Jet Arrival and Departure diagram below demonstrates this unnecessary complexity. *STAR arrivals to KSA are shown in red, SID departures from KSA are shown in blue, STAR arrivals to WSA are shown in yellow, SID departures from WSA are shown in purple.* (Dr Green submission)



RAWSA proposes that vast improvements on safety, noise and pollution impacts for all of Sydney basin residents and environs, can be achieved by an immediate re-engineering of airspace architecture for the entire Sydney basin – not the 30 year delay referred to as a possibility in the EIS.

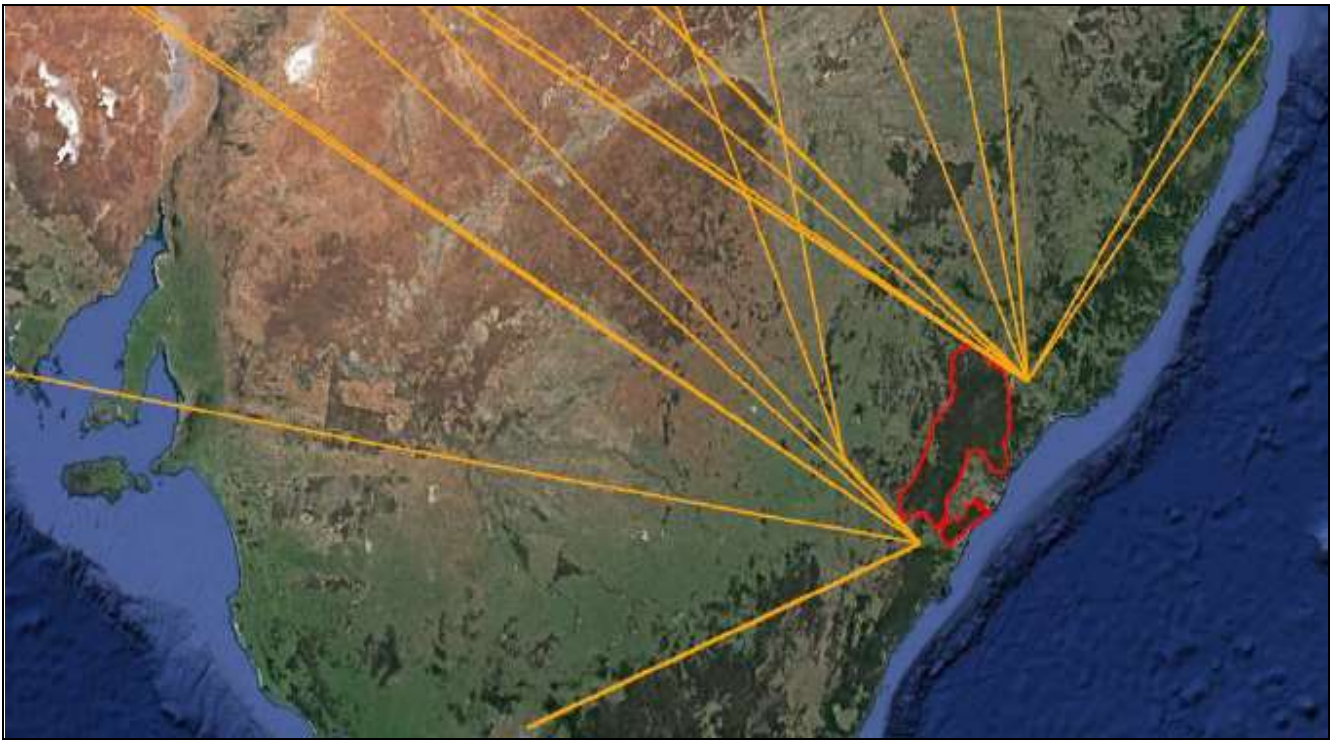
This re-engineering should have the objective to generally move KSA Flight Paths to the East for increased aircraft overflight of the Ocean and move the WSA Flight Paths more to the Northeast, South and Southeast. Current flight paths from KSA and proposed flight paths from WSA that overfly the World Heritage listed Blue Mountains should be totally abandoned for low flying aircraft and any future intrusion of aircraft into this vitally important area should be limited to aircraft that have obtained an altitude of more than 30,000 feet, in line with USA and European practices.

³⁸ Dr Anthony Green, Submission to 2023 draft Western Sydney Airport Flight Path EIS

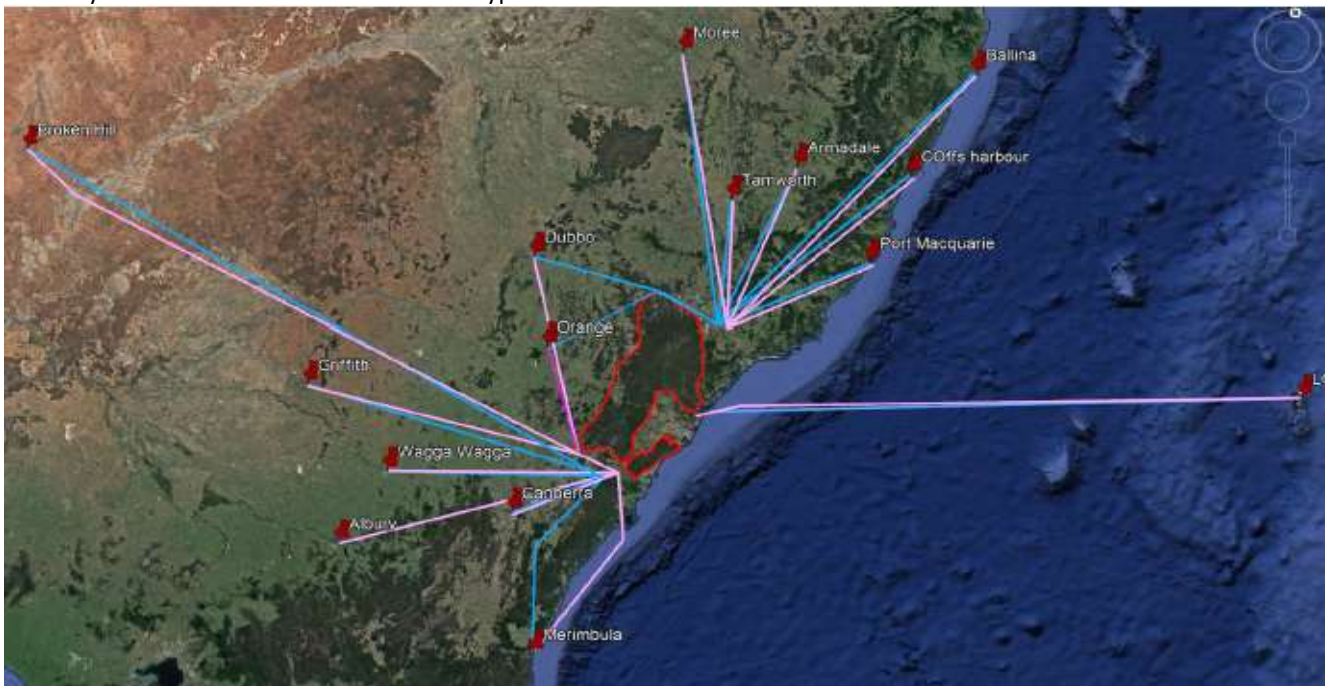
While residents in some suburbs won't be spared aircraft impacts by re-engineering airspace due to the orientation of runways at both airports, much of current KSA flight path noise will occur over the ocean and will allow more options for WSA flight paths over areas with higher ambient noise levels and which are less sensitive to aircraft impacts, than the World Heritage Areas, Sydney's main water supply and residential areas of *The West* that currently experience much lower ambient noise conditions.

RAWSA contends that new waypoints should be established to the north and to the south of the Sydney basin. This concept is best explained by referencing Dr Green's following diagrams.

Courtesy of Dr Green's submission - new Waypoints for Jet Aircraft



Courtesy of Dr Green's submission - new Waypoints for Turbo-Jet Aircraft



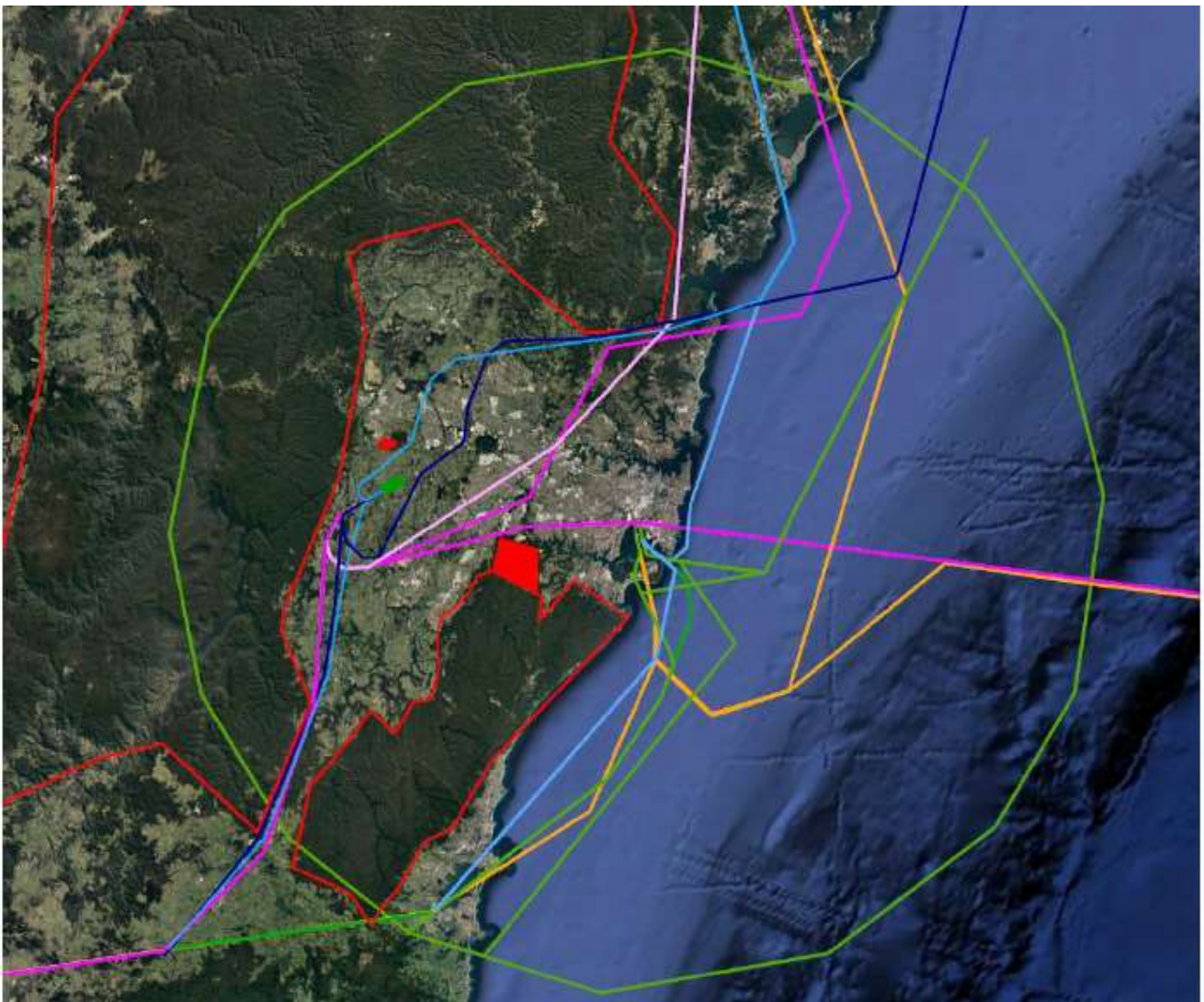
These Waypoints then provide the basis for development of improved flight paths for the entire Sydney basin.

The proposed re-engineering of airspace over the entire Sydney basin should have the objective to generally move KSA Flight Paths to the East for increased aircraft overflight of the Ocean and move the WSA Flight Paths more to the Northeast, South and Southeast.

The concept RAWSA proposes is best described by again referencing another of Dr Green's submission diagrams.

Although showing just one proposed mode of operation, the diagram below clearly shows the concept of how the re-engineering of Sydney region flight paths; a) Can concentrate KSA aircraft movements over the Ocean; b) Relieve some of the current overflight load suffered in many Sydney suburbs and; c) Provide more flexible flight path options for WSA.

Diagram courtesy of Dr Green's submission - *Proposed operational Mode 4 at KSA and RRO operation as a shoulder period.*



Finding – RAWSA's concept of alternate Flight Paths for WSA is best illustrated in Dr Green's submission that is more detailed and comprehensive and which, we commend for inclusion in the WSA Flight Path EIS document.

8. Community Requirements to finalise the WSA Flight Paths EIS

Requirement 1. The EIS to acknowledge that the number and geographical spread of ‘Constraints’ within WSA flight paths as well as the discrimination of protections for *The East*, requires an immediate re-engineering of the entire Sydney basin airspace architecture to allow more equitable utilisation of both KSA and WSA flightpaths.

See sections 2, 3 & 7 of this submission for discussion and justification

Requirement 2. The EIS to alter WSA flight paths to prevent the unacceptable intrusion of low altitude aircraft overflying the Blue Mountains World Heritage listed National Parks.

See sections 3.2, 5 & 7 of this submission for discussion and justification

Requirement 3. Apply the principle of minimising the impact on the least number of residents within the entire Sydney basin by implementing an absolute 11pm to 6am curfew at WSA (except for emergencies) and continuing extra RRO operations at KSA during the 11pm to 6am daily time period.

See section 4 of this submission for discussion and justification

Requirement 4. Change the application priority of 2020 Flight Path Design Principles to so that:

1. Principles related to Aircraft Safety have the highest priority and are applied firstly
2. Principles related to minimising people and environmental impacts have the next highest priority and are applied secondly,
3. Principles related to Aviation Efficiency and Operational Matters are applied thirdly, where possible and only if Principles relating to people and environmental impacts are not affected!

See section 6.1 & 7 of this submission for discussion and justification

Requirement 5. Move all discussion on Land Use planning using ANEF and ANEC from its current location in the EIS to prevent community misconception that it is relevant in predicting inflight aircraft noise impacts. These passages should be moved out of EIS Volume 3, Technical Paper 1 - Aircraft Noise

See section 6.2 & 6.3 of this submission for discussion and justification

Requirement 6. To increase transparency about the extent of aircraft noise distributions the EIS must include *Number Above* contours for N50 and N40 ranges.

See section 6.3 of this submission for discussion and justification

Requirement 7. To increase transparency about the peak of aircraft noise distributions, the EIS must include L_{Amax} dBA readings that are not averaged, for all *Number Above* indicators

Requirement 8. To be consistent with reliance on UN based ICAO recommendations and guidelines, EIS to also adopt UN based World Health recommendations and guidelines on exposure limits to aircraft noise.

See section 6.4 of this submission for discussion and justification

Requirement 9. Before sign off by Ministers for Infrastructure and Environment, the Final EIS document must include a prominently placed Section toward the front of the document, that:

1. Provides the total number of recommendations/suggestions received in all public submissions to the draft EIS,
2. Provides a list and description of any recommendations/suggestions adopted from all public submissions, and
3. Includes an appropriate level of explanation (not meaningless unsubstantiated statements) on the reason for rejecting the adoption of all recommendations/suggestions received in all public responses to the draft EIS.

This is a mandatory requirement to properly recognise and respect the concerns, efforts and time taken by members of the public in making their Submissions. Importantly also, meeting this requirement will open, the consultation process and resultant final EIS document to a level of transparency and accountability, that has been absent in the past.

9. Conclusions on Draft EIS

It is indisputable that, Aviation is inherently an intrusive industry. While some improvements have been made to aircraft noise and pollution emission over recent decades, these measures have not resulted in outcomes that are in accordance with community needs or expectations. Nor are they consistent with efforts to maintain the *Social Licence* afforded the aviation industry in the past.

Until such time as the industry itself solves these emission issues, communities affected by aviation impacts are within their right to demand that Government and its Agencies meet their duty of care responsibilities to the Australian people as the highest priority. Any measures implemented by this Government EIS, to aid the aviation industry must have a lower priority. Therefore the 2020 Flight Path Design Principles must be overhauled to remove the built-in aviation advantages that currently put *aviation efficiency* and *operational matters* as a more important priority than the *Principles* to protect people and the environment.

The number of constraints and no-fly zones within *The West* requires re-engineering of the entire Sydney basin airspace architecture to allow more equitable utilisation of both KSA and WSA flightpaths. In doing so, the Preliminary WSA flight paths must change, to prevent the unacceptable intrusion of low altitude aircraft on Blue Mountains World Heritage listed National Parks.

Re-design of the entire Sydney basin airspace architecture will improve aviation safety and the current unnecessary complexity of flight paths. It will also provide opportunities for minimising aviation noise and pollution impacts more equitably for residents of the entire Sydney basin.

The current proposal of treating KSA flight paths and operation so differently to WSA flight paths and operation, is discriminatory and this delineation of protections between *The East* and *The West*, must not be permitted to continue. Therefore a curfew must also be implemented for WSA Flight Paths.

With an overall EIS objective of minimising impacts on the least number of residents, the proposed WSA Reciprocal Runway Operation has immediate frequency limitations due to wind direction and strength, rainfall conditions and aircraft safety. RRO use at WSA has a short shelf life that will expire (at the latest) in the medium term. RRO is therefore not a viable nor fair alternative for a curfew at WSA.

Aviation services into the Sydney region can be provided overnight, by extra RRO operations at KSA during the 11pm to 6am daily time period, as the affected population is significantly less than would be affected by RRO flightpaths being operated at WSA.

The use of ANEF and ANEC contours must be moved from its current position in the EIS Aircraft Noise Volume and Technical Papers to avoid community misconception that it is relevant in predicting aircraft noise impacts. It must be very clear that that these contour maps are only useful for Land Use planning.

The *Number Above* indicators used in the EIS must be expanded to include figures for the N40 and N50 ranges to allow the full disclosure of aircraft noise impacts. Furthermore, Number Above indicators must reflect L_{Amax} figures that are not averaged over time.

The EIS must adopt UN based World Health recommendations and guidelines on exposure limits to aircraft noise. This would maintain a balanced and consistent approach, to the EIS requirement to reference UN based ICAO recommendations and guidelines.

The EIS must include a prominent section that explains the reason that any suggestions or recommendations received in the submission process, are not adopted. This requirement will open, the consultation process and resultant EIS document to an important level of transparency and accountability.

The release of Preliminary Flight Paths and the 2023 EIS, now marks the turning point where those in the community who previously accepted government assessments of flight path impacts are now bearing witness to some of the impacts predicted in the 4,500 opposing submissions associated with the 2016 Airport EIS.

With growing awareness of the flight path realities that are not in accordance with Government assurances or protections that were promised, RAWSA has experienced a surge of public opinion opposed to, not only the proposed flight paths but against the airport project itself. We assert that in the lead up to 2026 airport completion date, this level of community discord will steadily escalate and that the moment aircraft start flying over people's homes at all hours of the night and day, the community opposition will increase exponentially.

Due to aviation being an intrusive industry it is coming under increasing community pressure, not just in Western Sydney, but in many other Australian cities and around the world. With changes as highlighted in this submission, the EIS can overcome past errors.

Without such changes, the Government will see the same reactions, by residents of the Metropolitan Southwest, West and Northwest as well as the Blue Mountains and Wollondilly area, as has been experienced by affected residents of Perth, Hobart, Sunshine Coast, Gold Coast and Brisbane airport/flight path changes.

While this submission has focused on the Flight Path EIS, it is made against a background of fundamental belief that without instituting the same community protections afforded to residents affected by the operations of Kingsford Smith Airport (KSA), the WSA Flight Paths will not be sustainable.

End of Submission