



Presentation to YCAN Wednesday 20 July 2022

Flying in a climate emergency

I'd like to begin by acknowledging the Traditional Owners of the land on which I'm presenting tonight. It always was, & always will be the land of the Wurundjeri People of the Kulin Nation. I pay my respects to their Elders past and present. I am in debt to our First Nations for their story about connection to country.

And coincidentally, in another way, connection to country can help us look differently at how we travel. Which is kind of where I hope we can get to tonight.

But first up I'll brief you on aviation's contribution to the climate emergency, finishing with a short music video we made during the first lockdown.

And then after some Q&A I'll introduce the No 3rd Tulla runway campaign.

Flight Free Australia: <https://www.flightfree.net.au>

No 3rd Tulla Runway: <https://www.no3rdtullarunway.net.au>

So to start... getting back off the ground has been in the news. We're keen to fly again. To have that well earned holiday. To visit distant family members. We want to get back to normal. But hey, we're in a climate emergency!

So, can we keep flying?

To answer, we first need to know what emissions reductions are required of aviation – like we require for every emissions source – for global heating to stay under the Paris Agreement's 1.5°C.

Too often talk about flying jumps straight to listing what aviation can do to reduce its emissions. But that's next to useless without context, without first establishing what reductions are required.

Climate scientist Professor Kevin Anderson, from the UK's Tyndall Centre at Manchester University, recently published a paper on how many more years the IPCC's carbon budget for 1.5°C will last, and he made an online presentation of what that means for aviation. I'll put the links to both in the Chat. He provisionally concluded that for a 50:50 chance of holding warming to 1.5°C, the European Union must cut CO2 emissions to zero by 2030. And, assuming we're in the same ballpark. That's by 22% each year. But a 50:50 chance is hardly a safe gamble. So Anderson's conclusions align with our Breakthrough Centre for Climate Restoration's Climate Reality Check. Which concludes that for an acceptable probability, not 50:50, of holding warming to 1.5°C, no carbon budget remains. So even zero emissions by 2030 is not ideally safe. That said...

CO2 production phaseout report: https://www.research.manchester.ac.uk/portal/files/213256008/Tyndall_Production_Phaseout_Report_final_text_3_.pdf

Timely responses to the climate emergency: what role for aviation? <https://www.youtube.com/watch?v=K1ZxLWpOSH8>

[climaterealitycheck.net](https://www.climaterealitycheck.net)



Can aviation, cut its emissions to zero by 2030?

First up, how far from zero is it right now?

I've got some slides now so I'll share my screen.

How far from zero is aviation right now?

Four points tell us.

First. If the aviation industry were a country, it would be the sixth greatest emitter, sitting between Germany and Japan. (https://www.biologicaldiversity.org/programs/climate_law_institute/transportation_and_global_warming/airplane_emissions/ • <https://www.eesi.org/papers/view/fact-sheet-the-growth-in-greenhouse-gas-emissions-from-commercial-aviation> Contributing 6% of all human caused warming in 2019 <https://stay-grounded.org/get-information/#impact> . Melbourne–Sydney and Sydney–Brisbane are two of the world's 10 busiest flight paths. • **Slide #1** And pre-Covid, domestic aviation annually created more warming than Australia's dirtiest power station, AGL's Loy Yang. So aviation emissions are considerable.

Two. And they're growing. Pre-Covid they were growing at 4% a year. • **Slide #2** And the industry now projects, that that growth will have almost returned by 2030. Our zero deadline. <https://www.iata.org/en/iata-repository/publications/economic-reports/an-almost-full-recovery-of-air-travel-in-prospect/> • <https://climateactiontracker.org/sectors/aviation/> And airport expansion projects on the table right now, across the planet, total 590 billion US dollars. <https://www.globaldata.com/store/report/airport-construction-projects-market-analysis/> They're expected to grow.

Point Three. **Slide #3** Flying is the most warming single thing you can do, by hour and by kilometre. For example, the CO2 equivalent emissions from a Melbourne–London return flight – around 10 tonnes – increases an average Australian's annual emissions, of around 20 tonnes, by 50%. [521.9 March 2020 494mT CO2e March 2021](https://www.industry.gov.au/data-and-publications/national-greenhouse-gas-inventory-quarterly-update-march-2021) • <https://www.industry.gov.au/data-and-publications/national-greenhouse-gas-inventory-quarterly-update-march-2021> divided by 25.7million = 20t/person

Four. Flying's total warming impact is way more than commonly reported **Slide #4** Industry and media reporting on aviation only quotes its CO2 emissions when citing its 2% contribution to warming. **Slide #5** But at altitude, nitrous oxides, water vapour and contrails all create additional warming. In fact aviation's total warming impact is **3 times that of its CO2** alone. <https://stay-grounded.org/get-information/#impact>

So, aviation emissions are considerable, expected to grow, most warming and more than the industry likes to acknowledge. It's a long way from zero emissions.

What then is the industry doing to get to zero?

You may have heard about Offsetting and so called Sustainable Aviation Fuels – SAF. These are the industry's emissions reduction quote unquote solutions. Unfortunately they're just greenwashing. Just one example. You'll read the industry spruiking 80% emissions reductions from sustainable aviation fuel. Hey that sounds good. But jets running on 100% SAFs aint possible. It has to be in a 50:50 mix with jet diesel. So not 80% emissions reduction – say 40%. But that's only of CO2 emissions. So say 13%, one third of 40%. Plus it counts the carbon drawn down in growing the fuel.



The industry's various misleading emissions reduction claims are exposed in a series of fact sheets published by Stay Grounded, the international network of 160-odd groups campaigning on the harms and injustice of the aviation sector. I'll put the link in the Chat. *Alternative fuels to jet-diesel aren't able to deliver the required emissions reductions* • <https://www.bloomberg.com/opinion/articles/2021-08-01/best-not-fly-batteries-hydrogen-or-biofuels-won-t-bring-sustainable-aviation> • <https://www.aviationtoday.com/2021/08/05/sustainable-aviation-fuels-arent-sustainable-not-yet-least/>

They conclude **Slide #6** that alternate aviation fuels – biofuels, hydrogen and synthetic fuels – aren't deployable at scale over the next 8 crucial years that we have to stop emissions. And even if they were, they wouldn't be emissions free. Not least because they all still generate the nitrous oxides and contrail cirrus, that contribute twice the warming of any CO2 avoided.

Stay Grounded Greenwashing Fact Sheets: <https://stay-grounded.org/greenwashing/>

And what about offsetting?

That's the industry's other emissions reduction proposal. *It's the basis of their Carbon Offsetting and Reduction Scheme for International Aviation – CORSIA* • <https://www.icao.int/environmental-protection/CORSIA/Pages/default.aspx>

Well, the emissions reduction effectiveness of offsets is extremely limited. Warming CO2 emissions remain in the atmosphere for hundreds of years. To be credible their offsets must remain for the same time. What offsets program can guarantee that will happen? **Slide #7** And anyway, the aviation industry's offsetting scheme will, its estimated, cover **only 6%** of all international aviation CO2 emissions out to 2050. And none of the non-CO2 emissions. <https://www.carbonbrief.org/corsia-unplan-to-offset-growth-in-aviation-emissions-after-2020/>

And right when we need carbon drawdown for cooling a planet that's already too hot, swapping or offsetting that drawdown, to create more emissions, is like throwing fuel on the fire.

So aviation emissions are **growing, not shrinking**.
They're way more warming than reported.
And they can't be avoided for decades at the earliest.

So is there another way to get to zero?

Realistically, the only other way of stopping aviation emissions is by reducing the number of flights. Demand management. Rationing.

Slide #8 The **demand for flights can be cut** by individuals pledging to be flight free, and by organisations reforming their travel policy to target getting to zero flights within 8 years.

Flight demand can be cut when tickets cost more. If and when the tax on aviation fuel is increased ten fold to equal other transport **fuel taxes**. If a **levy** <https://neweconomics.org/2021/07/a-frequent-flyer-levy> is introduced that increases with every extra flight for the frequent flyer amongst us, **Slide #9** that is the 5% of Australians that create over 40% of aviation emissions <http://www.roymorgan.com/findings/7084-sky-high-australians-air-travel-habits-201612091252>. Or the 10% that create over two thirds of aviation emissions. **Slide #10** Or the 1% of the global population that create over half of all flight emissions <https://www.sciencedirect.com/science/article/pii/S0959378020307779> • <https://static1.squarespace.com/static/5d30896202a18c0001b49180/t/605a0951f9b7543b55bbo03b/1616513362894/Elite+Status+Global+inequalities+in+flying.pdf>. **Slide #11** Banning Frequent Flyer programs would help. Not least because they're often an airline's major profit generator. <https://marker.medium.com/why-the-survival-of-the-airlines-depends-on-frequent-flyer-programs-2509bd3f25d0> • <https://stay-grounded.org/frequent-flyer-programmes-incentivise-climate-destruction/>



Changing the way we travel and work, can also reduce flight demand. Covid has triggered a growth in virtual meetings, that is expected to continue for around a quarter of business travellers. <https://www2.deloitte.com/us/en/insights/focus/transportation/future-of-business-travel-post-covid.html> • <https://www.fastcompany.com/90632762/its-time-to-reassess-the-role-of-business-travel-in-global-warming> • <https://www.businesstravelnews.com/Management/Survey-Virtual-to-Replace-One-Quarter-of-2022-Travel-Volume-on-Average> And we urgently need Australia's interstate passenger rail network to be upgraded to provide an alternative to aviation. While the European Union is doubling the number of high speed railways, Australia doesn't even have one! • <https://edition.cnn.com/travel/article/europe-high-speed-rail-network/index.html>

Slide #12 The **number of flights can be cut** by regulation. When capacity caps are placed on airports, and with bans on airport expansions and on new flight routes. For example, in France new airport expansions are now prohibited. https://www.francetvinfo.fr/meteo/climat/loi-climat-au-supermarche-a-la-maison-sur-la-route-ce-que-pourrait-changer-le-texte-vote-a-l-assemblee_4498455.html • <https://simpleflying.com/charles-de-gaulle-airport-expansion-scrapped/> And in May last year, the French government, banned domestic flights to destinations that can be reached by train in less than two and a half hours.

And how about ending tax-payer funded airline bailouts? That would inhibit their growth.

Climate change will in its own way cut flight numbers. Storm surges and rising sea levels will close airports. In Australia, Brisbane and Cairns airports are most exposed to inundation of runways and airport infrastructure. And flights out of Sydney Airport, Gold Coast Airport, and Hobart will also be affected. Another climate impact, extreme heat, is already causing flight cancellations. When it thins the air and reduces the lift a plane requires for take off.

Just last Monday Luton airport cancelled flights after a runway melted.

<https://theconversation.com/rising-seas-threaten-australias-major-airports-and-it-may-be-happening-faster-than-we-think-115374> • [https://www.ifminvestors.com/docs/default-source/default-document-library/ifm_investors_-_esg_policy_\(10_march_2021\).pdf?sfvrsn=cda82205_2](https://www.ifminvestors.com/docs/default-source/default-document-library/ifm_investors_-_esg_policy_(10_march_2021).pdf?sfvrsn=cda82205_2) • <https://energymonitor.ai/sector/transport/why-airports-could-become-stranded-assets> • <https://neweconomics.org/2020/09/the-dodgy-economics-behind-expanding-our-airports> • <https://www.reuters.com/article/climatechange-europe-bank/eu-lending-arm-considers-ending-airport-expansion-support-draft-idINL4N2HR2KX> • <https://www.fitchratings.com/research/sovereigns/stranded-assets-long-term-risk-for-major-fossil-fuel-exporters-15-02-2021> • <https://phys.org/news/2022-03-extreme-disrupts-air-climate-worse.html> • <https://www.theguardian.com/uk-news/2022/jul/18/uk-weather-heatwave-boris-johnson-checked-out-airport-runways-closed>

And flights are reduced when public opposition halts airport expansions. For example, Bristol Airport in England has had its expansion plans put on hold while they are appealed on climate grounds. <http://www.no3rdtullarunway.net.au/portfolios/it-can-be-stopped/>

Running in parallel with any of these restrictions on flight numbers, must be a jobs transition plan, including income support and retraining where necessary, that gives aviation industry employees access to new jobs in land-based tourism, rail travel, hospitality and other industries.



So, what do you think. Can we show voluntary restraint? Can we accept rationing? Can we choose to not fly?

In **our** modern Australian world, flying has become normal – for business, for education and for the holiday experiences that we crave. But – as we know – we’re actually in a climate emergency. And normal responses will no longer get us to safety.

In a bushfire, we stop doing normal. We don’t keep watching our favourite tv show. We choose, for our own safety, to do something quite abnormal. We pack up our car and leave home, possibly forever.

In the climate emergency, for a less than 50:50 chance of avoiding runaway warming, can we do something abnormal? Can we cut aviation emissions to zero, by 2030? Can we choose to stop flying? Can we voluntarily stop flying for work, for holidays, for family reunions? And can we work to implement regulatory policies that cut flight demand?

To finish up, here are some takeaways to think about.

- Think about how your travel choices can align with your climate emergency response.
- Consider pledging to be flight free <https://flightfree.net.au/all-causes/pledge-to-be-flight-free/>
- Encourage Yarra Council to add a “flight emissions to zero” action, to its emergency response plans. It can be positioned as an easily attainable win, given council flight numbers are often small to start with. And, more significantly, engaging ratepayers on this issue, could be another way into a broader conversation about “abnormal emergency action”. Councillors could even be encouraged to take the lead by pledging to be flight free. <https://stay-grounded.org/travel-policy-guides/> • <https://www.lgcet.com> *Transport action 4.7 p23*

But most importantly, remember these 3 things.

Flying’s the most warming single thing you can do.

It can’t be emissions free before our zero deadline. And

Our voluntary restraint can move organisations and governments.

That’s it. Now for a musical interlude.

Slide #13 <https://www.youtube.com/watch?v=PtmFgfCXXNM>

Pledging : <https://flightfree.net.au/all-causes/pledge-to-be-flight-free/>

The Local Government Climate Emergency Toolkit <https://www.lgcet.com>

Travel advisory alert: <https://www.youtube.com/watch?v=PtmFgfCXXNM>



Can we stop another Loy Yang at Tulla?

I talked before about the need to stop airport expansions. Well, we now have that challenge on our doorstep. It's not quite the stop flying challenge I just talked about – the reduction of emissions. It's a kind of precursor. A stop *expanding* emissions challenge. Like XR is saying. "Just stop it".

Melbourne Airport will soon ask Catherine King, the new federal transport minister, to approve its Major Development Plan for a Third Runway.

And Flight Free has joined with local resident groups and others to try and stop the runway.

Public submissions on the proposal are now closed. So it's time to build pressure on the minister.

How bad will a new runway be?

Well don't ask Melbourne Airport. It's misleading the public about the runway's harmful impacts, in a number of ways.

Residents around the airport and under the proposed third runway flightpaths will experience harmful noise impacts hundreds of times a day, and inadequately assessed by the Major Development Plan.

The Major Development Plan assessed air pollution impacts using lax air quality compliance criteria that's not even currently applicable in Victoria. https://hdp-au-prod-app-brmbnk-yoursay-files.s3.amazonaws.com/8516/5275/7225/Submission_to_2022_Draft_Melbourne_Airport_Master_Plan.PDF

And over 130 hectares of federally protected endangered grey box woodlands will be clear-felled to make room for the runway.

Flight Free Australia's major concern though, is with the increased flight emissions the runway will enable.

How much will they be?

Again, don't expect an accurate answer from Melbourne Airport.

As I mentioned before... For an acceptable probability of avoiding climate chaos, we need to cut our emissions at emergency speed.

That includes aviation emissions. Reduced, not increased.

The IPCC says it, the UN & IEA say it. No new infrastructure that creates fossil fuel emissions.

But Melbourne Airport isn't listening.

It's 3rd runway will create annual global warming equivalent to our dirtiest coal fired power station, AGL's Loy Yang – that most of us want closed.

But Melbourne Airport is unwilling to admit that emissions will be this high.

It's proposal deceives the public. First, by counting only CO2 emissions enabled by the runway, when other flight emissions at altitude, as we know, are twice as warming as CO2 alone.

And second, it deceives the public by counting only landing and take-off, CO2 emissions. Which, depending on the flight, can be as little as 5% of a flight's total emissions.

Slide #14 Using the MDP's flight projections, and by estimating *total* flight emissions, the 3rd runway will enable about 50 times more warming than Melbourne Airport is willing to admit: around 16 million tonnes CO2 equivalent in 2046.



Slide #15 Sixteen years after the federal government wants to have reduced emissions across the board by 43%.

But Melbourne Airport can't admit this level of warming. Because this level of warming, in their own words, would have an Impact of Major Severity on the 3rd runway. An honestly estimated level of warming, would have, again in their words, quote "a significant and irrecoverable estimated financial liability ... [that could] include capital costs [and] negative reputation and media attention globally, with follow on effects including political implications, [with a probability that the] project is significantly delayed or cancelled." Unquote. [M3R MDP Severity criteria Table B11.1 at https://portal.com.au/melair/virtual](https://portal.com.au/melair/virtual)

So Melbourne Airport's 3rd Runway proposal lives in this climate denial bubble. And there's more. Melbourne Airport pretends their 3rd runway won't even be at risk in a 4°C world – where we'll get to, on our current, high-emissions, business-as-usual, and 3rd runway enabled flight path! Can you believe it?

At 4°C those Victorians, amongst the perhaps one billion remaining globally, would have survival on their minds, not a European holiday. An organised global community could not exist in a 4°C world. Yet Melbourne Airport reckons the 3rd runway will still be operating.

And here's the clincher.

Their Third Runway Major Development Plan admits that regulating emissions reductions – in other words, acting to reduce the risk of climate collapse – acting to make us safe – will threaten the operation of the 3rd runway. So, what do they do? Decide to halt the runway? No way! Melbourne Airport is recklessly pushing the proposal forward, expecting it to be approved.

In just the same way that we willingly observe Total fire bans, to prevent bushfires during summer. So, during the climate emergency, we need to willingly observe Total new runway bans, to prevent runaway warming.

We're not alone. Other airport expansions are being resisted around the world: in Sydney, the UK, Europe, North & South America, and Asia. • <http://www.no3rdtullarunway.net.au/portfolios/it-can-be-stopped/>

So how can we stop it?

With your help, we can get Minister Catherine King to knock back approval of the Third Runway. Just like we're working to stop new coal mines and gas projects.

Grounds might exist to stop the actual approval process. Technically the Third Runway Major Development Plan can only exist in relation to a ministerially approved Master Plan. But by releasing for public comment both the Master Plan and the MDP at the same time, Melbourne Airport asked the public to comment on an MDP that lacked a preceding and minister-approved Master Plan.

Our campaign hopes to put pressure on the minister from all quarters. From local councils – Brimbank council have already stated their opposition. From state and federal MPs realising their electors concerns – the Greens have already stated their opposition. From the industry super funds manager, IFM Investors – which has a 25% shareholding in Melbourne Airport – realising the concerns of their superannuation fund members. And from federal environment and climate change ministers realising their responsibilities.



So what can you do?

Here's four suggestions for starters.

One. Sign the campaign Petitions opposing the runway and calling for independent environment and health impact assessments. Around 600 have signed each already.

Two. Write to your Industry Super Fund Melbourne Airport shareholder.

Three. Have YCAN join the campaign as a "Supporter" group. And

Four. Sign up for Campaign updates.

I'll put links to these in the Chat.

That's it. Again, thanks for listening.

Oh, and tomorrow I'll send YCAN a link to a PDF of the slides and footnoted one of this talk.

Petitions: <http://www.no3rdtullarunway.net.au/portfolios/sign-the-petition/>

Industry Super Fund Melbourne Airport shareholders: <http://www.no3rdtullarunway.net.au/portfolios/divest-your-super-fund/>

Become a Supporter group: <http://www.no3rdtullarunway.net.au/portfolios/become-a-supporter/>

Campaign updates: <http://www.no3rdtullarunway.net.au/portfolios/keep-in-touch/>