

s22

**From:** s22  
**Sent:** Friday, 6 March 2020 4:48 PM  
**To:** s47F  
**Cc:** s22  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]  
**Attachments:** CCR Information and Data for Transparency\_Dec2019\_v20200106.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

OFFICIAL

s47F  
 Hi

Thank you for your email. Please find attached the accredited verifiers list for your reference.

We will get back to you shortly with regard to the EMP/CERT and next steps.

Kind regards,

s22

A/g Assistant Director |  
 International Air Transport and  
 Trade  
 Aviation Industry Policy | Aviation  
 and Airports  
 Department of Infrastructure,  
 Transport, Regional Development  
 and Communications

s22

GPO Box 594, Canberra ACT 2601



**Australian Government**

**Department of Infrastructure, Transport,  
 Regional Development and Communications**

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OFFICIAL

**From:** s47F  
**Sent:** Thursday, 5 March 2020 4:01 PM  
**To:** s22  
**Cc:** s22  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22 and Team,

Please advise if you have been able to review the EMP and the CERT. Can you please send the accredited verifiers list through and advise what I need to do to finalize these reports.

Thanks

s47F

---

**From:** s22 @infrastructure.gov.au>  
**Sent:** Tuesday, 3 March 2020 8:04 PM  
**To:** s47F  
**Cc:** s22  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thanks for sending through (the email actually got caught in our filter for “offensive words” – don’t know what it was they picked up).

As mentioned, I’ll get s22 (cc’d) to dust off the Emissions Monitoring Plan to ensure it meets our requirements.

Happy to send you a list of accredited verifiers but we won’t be able to be so bold as to recommend anyone – sorry.

Regards,

s22

OFFICIAL

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**From:** s47F  
**Sent:** Friday, 28 February 2020 3:15 PM  
**To:** s22 @infrastructure.gov.au>  
**Subject:** ExecuJet Australia CORSIA CERT

Dear s22

Following our call yesterday please find attached our draft CORSIA CERT report. Included in the report are all Flights Operated by ExecuJet Australia for which we need to report on CORSIA. I do have a number of questions regarding the CERT and would appreciate some feedback and time next week to review so that this may be finalized. As it seems we will need to have the report verified please could you send me relevant details and possibly a recommendation.

Please also send relevant contact details for your office with whom I should deal with.

Regards

s47F



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# ICAO

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

## ICAO document

### **CORSIA Central Registry (CCR): Information and Data for Transparency**



December 2019



**Carbon Offsetting and Reduction Scheme for International Aviation**



This ICAO document is referenced in Annex 16 — *Environmental Protection*, Volume IV — *Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)*. This ICAO document is material approved by the ICAO Council for publication by ICAO to support Annex 16, Volume IV and is essential for the implementation of the CORSIA. This ICAO document is available on the ICAO CORSIA website and may only be amended by the Council.

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The table below shows the amendments to this ICAO document over time, together with the dates on which the amendments were approved by the Council.

**Amendments to the ICAO document  
“CORSIA Central Registry: Information and Data for Transparency”**

<i>Edition</i>	<i>Amendment</i>	<i>Approved</i>
2nd Edition	Information on 16 verification bodies from six States. South Africa provided information for the first time.	20 Sep 2019
3rd Edition	Information on 24 verification bodies from eight States. China and Senegal provided information for the first time.	28 Nov 2019
4rd Edition	Information on 26 verification bodies from ten States. Czechia and India provided information for the first time.	24 Dec 2019

## Verification Bodies Accredited in States

Last updated: 17 December 2019

**State:** China

Verification Body Name
Beijing Capital Airport Energy Saving Technology Service Co. Ltd
China Classification Society Certification Company (CCSC)
China Quality Certification Centre
Guangzhou CEPREI Certification Body
Second Research Institute of Civil Aviation Administration of China
Tianjin CAUC Zhongtian Science and Technology Development Co. Ltd

**State:** Costa Rica

Verification Body Name
INTECO

**State:** Czechia

Verification Body Name
VERIFIKACE CZ

**State:** India

Verification Body Name
M/s Bureau Veritas India Pvt. Ltd.

**State:** Senegal

Verification Body Name
VERIFAVIA

**State:** Singapore

Verification Body Name
TÜV SÜD PSB Pte Ltd
Verifavia (Singapore) Pte. Ltd.

**State:** South Africa

Verification Body Name
CoZero

**State:** Spain

Verification Body Name
AENOR INTERNACIONAL, S.A.U.
SGS TECNOS, S.A.U

**State:** United Kingdom

Verification Body Name
Bureau Veritas Certification Holding SAS (UK branch)
SGS United Kingdom Limited
Verifavia (UK) Ltd

**State:** United States

Verification Body Name
Aster Global Environmental Solutions, Inc. (AGES)
First Environment, Inc.
GHD Limited
INSAFAC
Internat Energy Solutions Canada Inc.
NSF Certification, LLC
Ruby Canyon Engineering
SCS Global Services

– END –

**KENNA Allison**

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**From:** s47F [redacted] antas.com.au >  
**Sent:** Thursday, 26 March 2020 12:29 PM  
**To:** s22 [redacted]  
**Cc:** [redacted]  
**Subject:** RE: CORSIA discussion [SEC=OFFICIAL]

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi s47F [redacted]

Many thanks for the call and email – well received.

Best

s47F [redacted]

---

**From:** s22 [redacted]  
**Sent:** Thursday, 26 March 2020 12:04 PM

s47F [redacted]

**Subject:** RE: CORSIA discussion [SEC=OFFICIAL]

**OFFICIAL**

Hi s47F [redacted]

Thanks for your time on the phone.

As discussed, the Department confirms that we can initially offer an extension on the due date for Australian airlines' verified 2019 emissions reports to **31 July 2020** (currently 31 May). If there is a wider decision at the ICAO level to extend deadlines for airline and/or state reporting requirements, we will update you accordingly.

In relation to the baselines, we note Qantas' suggestion that 2019 only be used as the baseline year, and will be sure to keep you in the loop as these issues are worked through within ICAO.

Kind regards,

s22 [redacted]

A/g Assistant Director |  
 International Air Transport and  
 Trade  
 Aviation Industry Policy | Aviation  
 and Airports  
 Department of Infrastructure,  
 Transport, Regional Development  
 and Communications

s22 [redacted]

GPO Box 594, Canberra ACT 2601 ;



**Australian Government**

**Department of Infrastructure, Transport,  
 Regional Development and Communications**

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---

**From:** s47F  
**Sent:** Monday, 23 March 2020 3:00 PM  
**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** CORSIA discussion

Hi s22

Would you have any availability for a quick discussion on CORSIA reporting and baselines over the next day or two?

Hope you're staying safe and healthy!

Best

s47F

**Sustainability and Social Licence Manager**

Government, Industry, International and Sustainability  
Qantas Group  
A Wing, Level 1, 10 Bourke Road, Mascot NSW 2020

s47F

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**OFFICIAL**

s22

**From:** s22  
**Sent:** Thursday, 26 March 2020 12:07 PM  
**To:** s47F  
**Cc:** s22  
**Subject:** RE: CORISA obligations/timeline confirmation [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thanks for your time on the phone.

As discussed, the Department confirms that we can initially offer an extension on the due date for Australian airlines' verified 2019 emissions reports to **31 July 2020** (currently 31 May). If there is a wider decision at the ICAO level to extend deadlines for airline and/or state reporting requirements, we will update you accordingly.

We will also be sure to keep you in the loop as the baseline and other issues are worked through within ICAO.

Kind regards,

s22

A/g Assistant Director |  
 International Air Transport and  
 Trade  
 Aviation Industry Policy | Aviation  
 and Airports  
 Department of Infrastructure,  
 Transport, Regional Development  
 and Communications

s22



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GPO Box 594, Canberra ACT 2601

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**From:** s47F <@virginaustralia.com>  
**Sent:** Tuesday, 24 March 2020 11:03 AM  
**To:** s22 <infrastructure.gov.au>  
**Subject:** CORISA obligations/timeline confirmation

Hi s22

Are you able to give me some confirmation on our current CORSIA obligations and timeframes.  
 Given the compliance connection to the AOC it would be helpful to have a formal outline of our objectives.

Please give me a call to talk this through if needed.

s47F



s47F

General Manager Sustainability, Corporate Responsibility and Government Affairs

56 Edmondstone Road, Bowen Hills 4006

s47F

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s22

**From:** s47F@iata.org>  
**Sent:** Wednesday, 22 April 2020 10:07 AM  
**To:** s22  
**Subject:** FW: Impact of COVID-19 on CORSIA - Australia  
**Attachments:** CORSIA COVID\_Position paper on baseline (30 March 2020).pdf

Hi s22

Unfortunately, I wasn't able to find your cell number. Appreciate if you could let me know about this enquiry below.

If you need any clarification regarding its contents, my number is s47F

Many thanks and I look forward to hearing from you.

Regards,

s47F

**Campaign Manager South West Pacific  
 ASPAC-Field Offices**

s47F

---

**From:** s47F  
**Sent:** Wednesday, April 22, 2020 9:07 AM  
**To:** s22@infrastructure.gov.au>  
**Subject:** FW: Impact of COVID-19 on CORSIA - Australia

Good morning s22

I hope you are well. I thought I'd follow up on my email, I'd sent about three weeks ago in relation to the voluntary phase of Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

Based on current CORSIA provisions 2020 emissions were to be used to determine the baseline for CORSIA. However, the impact of COVID-19 on air traffic into this year and will lead to a significant lowering of the baseline compared to what was projected as a basis for adopting CORSIA. This will result in a substantially higher offsetting requirements and costs for operators than earlier envisaged. IATA's Sustainability and Environment Advisory Council (SEAC) has therefore asked that consideration be given to adjust the baseline emissions to 2019 only and delay the reporting of the verified emissions report to until at least 31 October 2020.

I've attached herewith IATA's CORSIA COVID-19 position paper outlining the ensuing recommendations and trust that it articulates our points of view. Accordingly, may I ask if we would have the support of the Australian Government for the baseline adjustment when ICAO Council considers this decision?

I will aim to give you a call a little later today to have your feedback

Regards,

s47F



---

**From:** s47F  
**Sent:** Wednesday, April 1, 2020 3:16 PM  
**To:** s22 @infrastructure.gov.au>  
**Subject:** Impact of COVID-19 on CORSIA - Australia

Good afternoon s22

I hope you and your family are safe in these troublesome times. We are doing our best under the circumstances and hope this situation blows over quickly.

With the impact of COVID-19 being felt far and wide, the implementation of CORSIA could potentially be jeopardized due to the sharp drop in air traffic. This year (2019 – 2020), the baseline emissions of the CORSIA scheme will be significantly impacted, and airlines will be expected to offset more than they would have envisaged w.e.f 1 January 2021. This of course poses risks to volunteering States who may consider opting out of CORSIA or for that matter States, going forward becoming hesitant to volunteer for CORSIA.

IATA's Sustainability and Environment Advisory Council (**SEAC**) has considered a need to adjust the baseline emissions to 2019 only and to delay the reporting of the verified emissions report to until at least 31 October 2020. Accordingly, we'd like to seek the support of the Australian Government for the baseline adjustment when ICAO Council considers this decision. To this effect, I've attached herewith IATA's CORSIA COVID-19 position paper on this baseline which outlines the current predicament and the ensuing recommendation for the alternative baseline.

Your advice and support of the Australian Government in this regard would be most appreciated and we look forward to hearing from you.

Have a nice day ahead and stay safe.

s47F



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# Impact of COVID-19 on CORSIA baseline calculation

The COVID-19 crisis is having a severe impact on air traffic, with airlines experiencing serious declines in demand. Traffic has collapsed, even between countries without major outbreaks of COVID-19. As the current CORSIA provisions call for 2020 emissions to be used in determining the baseline for CORSIA, this reduction in traffic will significantly lower the baseline compared to what was projected as a basis for adopting CORSIA, resulting in significantly higher offsetting requirements and costs for operators further down the line.

CORSIA's baseline must be adjusted to ensure the sustainable development of international aviation and avoid an inappropriate economic burden on the sector

Under CORSIA, aircraft operators will have to offset the increase in CO<sub>2</sub> emissions above baseline emissions. Baseline emissions are defined as the average between emissions in 2019 and 2020. Consequently, any significant reduction in 2020 emissions will have a knock-on effect in increasing offsetting requirements.

IATA is highly concerned that if the cost impacts of CORSIA are higher than forecast, many states may be less inclined to volunteer for the pilot and first phase and, indeed, current volunteers may reconsider their earlier decisions in order to safeguard the interest of their national air transport system and its connectivity. An adjustment to the baseline is also necessary to limit the economic impact of the COVID-19 crisis on aeroplane operators.

IATA recalls that Assembly Resolution A40-19 underlines the "need to provide for safeguards in the CORSIA to ensure the sustainable development of the international aviation sector and against inappropriate economic burden on international aviation" and gives authority to the Council to identify means to address these issues (A40-19, paragraph 16).

There is no doubt that the COVID-19 crisis and its impact on CORSIA's offsetting requirements constitute circumstances which put the sustainable development of the sector at risk and will result in an inappropriate economic burden on international aviation. Therefore, IATA calls on the ICAO Council to exercise the authority received under Assembly Resolution A40-19 to address these issues and agree to amend the baseline for CORSIA.

Instead of using the average of 2019 and 2020 emissions to determine the CORSIA baseline, **IATA recommends that 2019 emissions be used for the determination of CORSIA's baseline emissions**. Allowing the use of 2019 emissions as an alternative would preserve the environmental benefits that were forecast to be achieved through CORSIA as the adjusted baseline would remain more stringent than what the baseline would have been without the COVID-19 crisis.

Therefore, **we request that ICAO reaches a decision on this matter as soon as possible and no later than 30 June 2020** which is the date referred to in Assembly Resolution A40-19, paragraph 9(f).



## Additional impacts of COVID-19 on CORSIA

Aeroplane operators are expected to submit a verified emissions report for 2019 to their administering authority by the end of 31 May 2020. However, the travel restrictions and confinement measures imposed in many countries have made it impossible for verification bodies to conduct verification activities.

In order to allow the verification process to be conducted in accordance with the requirements of Annex 16, volume IV, **[IATA calls on ICAO to urge States to extend the deadline for the submission of the verified emissions report and associated verification report for 2019 until at least 31 October 2020.](#)**

s22

**From:** s47F  
**Sent:** Thursday, 23 April 2020 8:35 AM  
**To:** s22  
**Cc:** WOLFE Jim  
**Subject:** RE: Impact of COVID-19 on CORSIA - Australia [SEC=OFFICIAL]

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi s22

Absolutely no issues with the response. I totally understand and thank you very much for the advice and for the current position statement on these two matters relating to CORSIA. I will await your advice on the baseline adjustment, once you've been able to review the modelling data being worked on at ICAO.

Indeed, these are challenging times and thankfully the family and I are in good health. I hope when this is over, we are all able to appreciate everything we end up taking for granted.

Have a wonderful day ahead and we'll see you at IATA virtual Summit which will commence in a few hours from now.

Regards

s47F

---

**From:** s22 @infrastructure.gov.au>  
**Sent:** Wednesday, April 22, 2020 8:00 PM  
**To:** s47F  
**Cc:** WOLFE Jim <Jim.Wolfe@infrastructure.gov.au>  
**Subject:** RE: Impact of COVID-19 on CORSIA - Australia [SEC=OFFICIAL]

OFFICIAL

Hi s47F,

Apologies for the delay in response – it has been a crazy couple of weeks.

Hope that you and your family are OK during these challenging times. And we appreciate the very important role that IATA has to play in supporting States and ICAO in making informed decisions.

Thank you for providing IATA's position paper on CORSIA. We certainly share the same high-level objectives – ensuring the sustainable development of the sector, both environmentally and economically.

IATA's position on extending the deadline for submissions of emissions reports is sensible. In Australia, we've provided an initial two-month extension to our airlines to submit their emissions reports to the end of July. We're certainly open to extending that, subject to any ICAO decisions on the issue. It's very important that, globally, we get the most accurate 2019 data we can and if deadline extensions are necessary to achieve that accuracy, we would be supportive.

On the issue of adjusting the baseline, we are attracted to the idea of a simple solution that is easy to implement. We are also keen to ensure any solution does not discourage any States to drop out of the voluntary offsetting phase. There is modelling work that is currently underway in the ICAO CAEP that will help us understand the full scope of the baseline issue and inform any decisions that ICAO will make on the baseline adjustment. We'll wait for that modelling work to be completed and CAEP to agree some options before settling on a position.

Hope that helps. Let me know if you need anything further.

Regards,

s22

OFFICIAL

---

**From:** s47F  
**Sent:** Wednesday, 22 April 2020 10:07 AM  
**To:** s22 @infrastructure.gov.au>  
**Subject:** FW: Impact of COVID-19 on CORSIA - Australia

Hi s22

Unfortunately, I wasn't able to find your cell number. Appreciate if you could let me know about this enquiry below.

If you need any clarification regarding its contents, my number is s47F

Many thanks and I look forward to hearing from you.

Regards,

s47F

---

**From:** s47F  
**Sent:** Wednesday, April 22, 2020 9:07 AM  
**To:** s22 @infrastructure.gov.au>  
**Subject:** FW: Impact of COVID-19 on CORSIA - Australia

Good morning s22

I hope you are well. I thought I'd follow up on my email, I'd sent about three weeks ago in relation to the voluntary phase of Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

Based on current CORSIA provisions 2020 emissions were to be used to determine the baseline for CORSIA. However, the impact of COVID-19 on air traffic into this year and will lead to a significant lowering of the baseline compared to what was projected as a basis for adopting CORSIA. This will result in a substantially higher offsetting requirements and costs for operators than earlier envisaged. IATA's Sustainability and Environment Advisory Council (SEAC) has therefore asked that consideration be given to adjust the baseline emissions to 2019 only and delay the reporting of the verified emissions report to until at least 31 October 2020.

I've attached herewith IATA's CORSIA COVID-19 position paper outlining the ensuing recommendations and trust that it articulates our points of view. Accordingly, may I ask if we would have the support of the Australian Government for the baseline adjustment when ICAO Council considers this decision?

I will aim to give you a call a little later today to have your feedback

Regards,

s47F



---

**From:** s47F

**Sent:** Wednesday, April 1, 2020 3:16 PM

**To:** 's22' <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>

**Subject:** Impact of COVID-19 on CORSIA - Australia

Good afternoon s22

I hope you and your family are safe in these troublesome times. We are doing our best under the circumstances and hope this situation blows over quickly.

With the impact of COVID-19 being felt far and wide, the implementation of CORSIA could potentially be jeopardized due to the sharp drop in air traffic. This year (2019 – 2020), the baseline emissions of the CORSIA scheme will be significantly impacted, and airlines will be expected to offset more than they would have envisaged w.e.f 1 January 2021. This of course poses risks to volunteering States who may consider opting out of CORSIA or for that matter States, going forward becoming hesitant to volunteer for CORSIA.

IATA's Sustainability and Environment Advisory Council (**SEAC**) has considered a need to adjust the baseline emissions to 2019 only and to delay the reporting of the verified emissions report to until at least 31 October 2020. Accordingly, we'd like to seek the support of the Australian Government for the baseline adjustment when ICAO Council considers this decision. To this effect, I've attached herewith IATA's CORSIA COVID-19 position paper on this baseline which outlines the current predicament and the ensuing recommendation for the alternative baseline.

Your advice and support of the Australian Government in this regard would be most appreciated and we look forward to hearing from you.

Have a nice day ahead and stay safe.

s47F



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**From:** s47F @qantas.com.au>  
**Sent:** Friday, 24 April 2020 11:38 AM  
**To:** s22  
**Cc:** s47F  
**Subject:** ACCUs and CORSIA eligibility

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi s22

Hope this finds you both well.

Ross, we spoke a couple of months ago about whether there would be a policy change to the use of ACCUs in international schemes, such as CORSIA. Has there been any movement on this from a department or government position? Our Future Planet team (led by s47F) were wondering whether there may be an appetite to consider such a policy change at the moment. Most grateful for any updates you can provide and if it would be useful to have a quick call I can set something up.

As mentioned at the time, while we would likely source lowest cost units, in the case where more countries ringfence their credits, we will want to be able to source ACCUs for any compliance obligations under CORSIA.

Many thanks

s47F

**Sustainability and Social Licence Manager**

Government, Industry, International and Sustainability  
 Qantas Group  
 A Wing, Level 1, 10 Bourke Road, Mascot NSW 2020

s47F

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s22

**From:** s47F  
**Sent:** Tuesday, 12 May 2020 12:45 PM  
**To:** s22  
**Cc:** s22  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi s22

I trust you are all keeping safe.

I wanted to follow up and see if there had been any further extensions to the reporting deadline for our CORSIA reporting.

Kind Regards

s47F

---

**From:** s22 @infrastructure.gov.au>  
**Sent:** Friday, 27 March 2020 4:34 PM  
**To:** s47F  
**Cc:** s22 @infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thank you for your email.

We acknowledge your request for a suspension or delay of the CORSIA program, in light of the unprecedented challenges for the aviation industry as a result of the coronavirus outbreak. Given the impact of the virus, there will be work going in ICAO in the coming weeks/months on a range of issues relating to CORSIA including the baselines and timeframes, and we will certainly take ExecuJet's position on board and keep you in the loop as that work proceeds.

As an initial step, our Department is able to offer an extension on the due date for Australian airlines' verified 2019 emissions reports to **31 July 2020** (currently 31 May), while still allowing us to meet our national reporting deadline to ICAO. If there is a wider decision at the ICAO level to extend deadlines for airline and/or national reporting requirements, we will update you accordingly.

If you have any further queries at this stage, please let us know.

Kind regards,

s22

OFFICIAL



---

**From:** s47F  
**Sent:** Tuesday, 24 March 2020 10:36 PM  
**To:** s22 @infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Cc:** s22 @infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Dear s22

Whilst I have started to engage verifiers to complete the verification process of our submission I would like to request if a suspension or a delay to the CORSIA program can be considered as we all grapple with the impacts of the Corona Virus. Whilst we are not yet required to purchase carbon offsets the verification process has a rather significant cash outlay for which we would rather not proceed with at this time. The impacts of the Corona Virus to Australian businesses over the coming months will be significant and any cash savings opportunities need to be pursued to protect the industry, ExecuJet as an organization, and all of our employees over the long term. We therefore respectfully request that a program delay be considered.

I trust this proposal will be seriously considered and looking forward to a favourable response. I am available to discuss the above should it be necessary.

Regards

s47F

---

**From:** s22 @infrastructure.gov.au>  
**Sent:** Friday, 13 March 2020 12:47 PM  
**To:** s47F  
**Cc:** s22 t@infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

My apologies for the late notice, however would it be possible to reschedule our conversation until later this afternoon or Monday? We are currently dealing with some urgent matters in relation to coronavirus.

Kind regards,

s22

OFFICIAL

---

**From:** s47F  
**Sent:** Thursday, 12 March 2020 1:13 PM  
**To:** s22 @infrastructure.gov.au>  
**Cc:** s22 @infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Subject:** Re: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Thanks s22

I will call you then.

Regards

s47F

---

**From:** s22 @infrastructure.gov.au>  
**Sent:** Thursday, March 12, 2020 12:41:41 PM  
**To:** s47F  
**Cc:** s22 @infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Friday at 1300 is good for me - you can reach me on 02 6274 s47F

Kind regards,

s22

OFFICIAL

---

**From:** s47F  
**Sent:** Wednesday, 11 March 2020 6:09 PM  
**To:** s22 @infrastructure.gov.au>  
**Cc:** s22 @infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22

That would be great. Could we make it Friday afternoon at 1300 if possible?

Regards  
Denis

---

**From:** s22 @infrastructure.gov.au>  
**Sent:** Wednesday, 11 March 2020 5:46 PM  
**To:** s47F  
**Cc:** s22 @infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Happy to schedule a call for either Thursday afternoon or Friday this week. When would be most convenient for you?

Kind regards,

s22

A/g Assistant Director |  
International Air Transport and  
Trade  
Aviation Industry Policy | Aviation  
and Airports  
Department of Infrastructure,



**Australian Government**  
**Department of Infrastructure, Transport,  
Regional Development and Communications**

s22

GPO Box 594, Canberra ACT 2601

*The department proudly acknowledges the Traditional Owners and Custodians of Australia, and their continuing connections to the land, waters and communities. We pay our respects to them and to their Elders past, present and emerging.*

OFFICIAL

---

**From:** s47F  
**Sent:** Tuesday, 10 March 2020 9:00 PM  
**To:** s22 @infrastructure.gov.au>  
**Cc:** s22 @infrastructure.gov.au>; s22 s@infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22

We are in contact with verifiers but wanted to see what our next steps are. Are we able to schedule a call this week.

Thanks

s47F

---

**From:** s22 t@infrastructure.gov.au>  
**Sent:** Friday, 6 March 2020 4:48 PM  
**To:** s47F  
**Cc:** s22 @infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thank you for your email. Please find attached the accredited verifiers list for your reference.

We will get back to you shortly with regard to the EMP/CERT and next steps.

Kind regards,

s22

A/g Assistant Director |  
International Air Transport and  
Trade  
Aviation Industry Policy | Aviation  
and Airports  
Department of Infrastructure,  
Transport, Regional Development  
and Communications

s22

e:



**Australian Government**

**Department of Infrastructure, Transport,  
Regional Development and Communications**

s22

GPO Box 594, Canberra ACT 2601

*The department proudly acknowledges the Traditional Owners and Custodians of Australia, and their continuing connections to the land, waters and communities. We pay our respects to them and to their Elders past, present and emerging.*

OFFICIAL

---

**From:** s47F  
**Sent:** Thursday, 5 March 2020 4:01 PM  
**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Cc:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>; s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22 and Team,

Please advise if you have been able to review the EMP and the CERT. Can you please send the accredited verifiers list through and advise what I need to do to finalize these reports.

Thanks  
s47F

---

**From:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Sent:** Tuesday, 3 March 2020 8:04 PM  
**To:** s47F  
**Cc:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>; s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thanks for sending through (the email actually got caught in our filter for “offensive words” – don’t know what it was they picked up).

As mentioned, I’ll get s22 (cc’d) to dust off the Emissions Monitoring Plan to ensure it meets our requirements.

Happy to send you a list of accredited verifiers but we won’t be able to be so bold as to recommend anyone – sorry.

Regards,

s22

OFFICIAL

---

**From:** s47F  
**Sent:** Friday, 28 February 2020 3:15 PM  
**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** ExecuJet Australia CORSIA CERT

Dear s22

Following our call yesterday please find attached our draft CORSIA CERT report. Included in the report are all Flights Operated by ExecuJet Australia for which we need to report on CORSIA. I do have a number of questions regarding the CERT and would appreciate some feedback and time next week to review so that this may be finalized. As it seems we will need to have the report verified please could you send me relevant details and possibly a recommendation.

Please also send relevant contact details for your office with whom I should deal with.

Regards

s47F



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## Disclaimer

s22

**From:** s47F@iata.org>  
**Sent:** Wednesday, 13 May 2020 4:52 PM  
**To:** s22  
**Cc:** WOLFE Jim  
**Subject:** RE: Impact of COVID-19 on CORSIA - Australia [SEC=OFFICIAL]

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Good evening s22

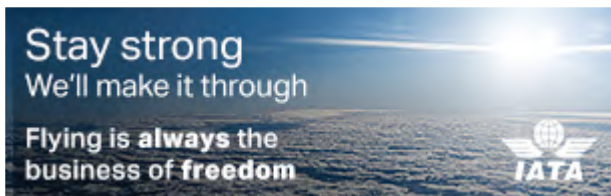
I hope you are well? I thought I'd follow up on our email exchange from a few weeks ago. I understand that the WG4 (CORSIA working group established under CAEP) met last week and I trust those discussions went well?

Accordingly, I wanted to touch base and enquire if you might be able to advise Australia's position in relation to the adjustment of baseline emissions to 2019 please?

Many thanks and I look forward to hearing from you.

Regards,

s47F



**International Air Transport Association**  
 Suite 8.01, Level 8, 55 Clarence Street,  
 PO Box 3563, 2001, Sydney, Australia  
[iata.org](http://iata.org)




---

**From:** s22@infrastructure.gov.au>  
**Sent:** Wednesday, April 22, 2020 8:00 PM  
**To:** s47F@iata.org>  
**Cc:** WOLFE Jim <Jim.Wolfe@infrastructure.gov.au>  
**Subject:** RE: Impact of COVID-19 on CORSIA - Australia [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Apologies for the delay in response – it has been a crazy couple of weeks.

Hope that you and your family are OK during these challenging times. And we appreciate the very important role that IATA has to play in supporting States and ICAO in making informed decisions.

Thank you for providing IATA's position paper on CORSIA. We certainly share the same high-level objectives – ensuring the sustainable development of the sector, both environmentally and economically.

IATA's position on extending the deadline for submissions of emissions reports is sensible. In Australia, we've provided an initial two-month extension to our airlines to submit their emissions reports to the end of July. We're certainly open to extending that, subject to any ICAO decisions on the issue. It's very important that, globally, we get the most accurate 2019 data we can and if deadline extensions are necessary to achieve that accuracy, we would be supportive.

On the issue of adjusting the baseline, we are attracted to the idea of a simple solution that is easy to implement. We are also keen to ensure any solution does not discourage any States to drop out of the voluntary offsetting phase. There is modelling work that is currently underway in the ICAO CAEP that will help us understand the full scope of the baseline issue and inform any decisions that ICAO will make on the baseline adjustment. We'll wait for that modelling work to be completed and CAEP to agree some options before settling on a position.

Hope that helps. Let me know if you need anything further.

Regards,

s22

OFFICIAL

---

**From:** s47F <[redacted]@iata.org>  
**Sent:** Wednesday, 22 April 2020 10:07 AM  
**To:** s22 <[redacted]@infrastructure.gov.au>  
**Subject:** FW: Impact of COVID-19 on CORSIA - Australia

Hi s22

Unfortunately, I wasn't able to find your cell number. Appreciate if you could let me know about this enquiry below.

If you need any clarification regarding its contents, my number is 0420887668.

Many thanks and I look forward to hearing from you.

Regards,

s47F

---

**From:** s47F <[redacted]>  
**Sent:** Wednesday, April 22, 2020 9:07 AM  
**To:** 's22' <[redacted]@infrastructure.gov.au> <[redacted]@infrastructure.gov.au>  
**Subject:** FW: Impact of COVID-19 on CORSIA - Australia

Good morning s22

I hope you are well. I thought I'd follow up on my email, I'd sent about three weeks ago in relation to the voluntary phase of Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

Based on current CORSIA provisions 2020 emissions were to be used to determine the baseline for CORSIA. However, the impact of COVID-19 on air traffic into this year and will lead to a significant lowering of the baseline compared to what was projected as a basis for adopting CORSIA. This will result in a substantially higher offsetting requirements and costs for operators than earlier envisaged. IATA's Sustainability and Environment Advisory Council (SEAC) has therefore asked that consideration be given to adjust the baseline emissions to 2019 only and delay the reporting of the verified emissions report to until at least 31 October 2020.

I've attached herewith IATA's CORSIA COVID-19 position paper outlining the ensuing recommendations and trust that it articulates our points of view. Accordingly, may I ask if we would have the support of the Australian Government for the baseline adjustment when ICAO Council considers this decision?

I will aim to give you a call a little later today to have your feedback

Regards,

s47F

---

**From:** s47F  
**Sent:** Wednesday, April 1, 2020 3:16 PM  
**To:** 's22'@infrastructure.gov.au' s22@infrastructure.gov.au>  
**Subject:** Impact of COVID-19 on CORSIA - Australia

Good afternoon s22

I hope you and your family are safe in these troublesome times. We are doing our best under the circumstances and hope this situation blows over quickly.

With the impact of COVID-19 being felt far and wide, the implementation of CORSIA could potentially be jeopardized due to the sharp drop in air traffic. This year (2019 – 2020), the baseline emissions of the CORSIA scheme will be significantly impacted, and airlines will be expected to offset more than they would have envisaged w.e.f 1 January 2021. This of course poses risks to volunteering States who may consider opting out of CORSIA or for that matter States, going forward becoming hesitant to volunteer for CORSIA.

IATA's Sustainability and Environment Advisory Council (**SEAC**) has considered a need to adjust the baseline emissions to 2019 only and to delay the reporting of the verified emissions report to until at least 31 October 2020. Accordingly, we'd like to seek the support of the Australian Government for the baseline adjustment when ICAO Council considers this decision. To this effect, I've attached herewith IATA's CORSIA COVID-19 position paper on this baseline which outlines the current predicament and the ensuing recommendation for the alternative baseline.

Your advice and support of the Australian Government in this regard would be most appreciated and we look forward to hearing from you.

Have a nice day ahead and stay safe.

s47F

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s22

**From:** s47F @iata.org>  
**Sent:** Wednesday, 20 May 2020 4:43 PM  
**To:** s22  
**Cc:** WOLFE Jim  
**Subject:** RE: Impact of COVID-19 on CORSIA - Australia [SEC=OFFICIAL]  
**Attachments:** COVID & CORSIA analysis (updated 19 May 2020).pdf; COVID19 and CORSIA Baseline - 19 May 2020.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Good evening s22,

I thought I'd share with you the recently released analysis on the impact of COVID-19 on CORSIA. Also attached is IATA's latest position paper that sets out the issue and outlines our recommendation for using 2019 only for the baseline emissions.

We trust these documents clearly articulate why IATA is calling for a decision on this matter at the upcoming ICAO Council session (8 June – 26 June).

Many thanks and please do let me know if you need any further information?

Regards,

s47F

**From:** s47F  
**Sent:** Wednesday, May 13, 2020 4:52 PM  
**To:** s22 @infrastructure.gov.au>  
**Cc:** WOLFE Jim <Jim.Wolfe@infrastructure.gov.au>  
**Subject:** RE: Impact of COVID-19 on CORSIA - Australia [SEC=OFFICIAL]

Good evening s22

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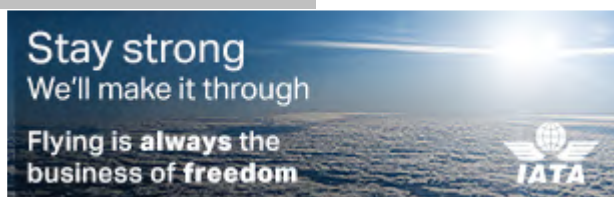
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s47F

s47F



International Air Transport Association  
Suite 8.01, Level 8, 55 Clarence Street,  
PO Box 3563, 2001, Sydney, Australia  
[iata.org](http://iata.org)



---

**From:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Sent:** Wednesday, April 22, 2020 8:00 PM  
**To:** s47F <[s47F@iata.org](mailto:s47F@iata.org)>  
**Cc:** WOLFE Jim <[Jim.Wolfe@infrastructure.gov.au](mailto:Jim.Wolfe@infrastructure.gov.au)>  
**Subject:** RE: Impact of COVID-19 on CORSIA - Australia [SEC=OFFICIAL]

OFFICIAL

Hi s47F

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s22

OFFICIAL

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**Subject:** FW: Impact of COVID-19 on CORSIA - Australia

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s47F

---

**From:** s47F  
**Sent:** Wednesday, April 22, 2020 9:07 AM  
**To:** 's22 @infrastructure.gov.au' s22 @infrastructure.gov.au>  
**Subject:** FW: Impact of COVID-19 on CORSIA - Australia

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I will aim to give you a call a little later today to have your feedback

Regards,

s47F

---

**From:** s47F  
**Sent:** Wednesday, April 1, 2020 3:16 PM  
**To:** 's22 @infrastructure.gov.au' s22 @infrastructure.gov.au>  
**Subject:** Impact of COVID-19 on CORSIA - Australia

Good afternoon s22

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Have a nice day ahead and stay safe.

s47F

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# Impacts of COVID-19 crisis on CORSIA

Updated analysis, 19 May 2020

# Revisions

## 2020 emissions

High and low estimates based on the analysis published by the ICAO Office of Economic Development on 12 May 2020

- **"2020 High"**: Scenario 1 (V-recovery)
- **"2020 Low"**: Scenario 2 (U-recovery)

## Passenger traffic forecast

Pre-COVID-19 and COVID-19 forecasts based on IATA's latest passenger traffic forecasts.

# 4 questions:

1. What is the (estimated) impact on 2020 emissions?
2. What is the impact on CORSIA's baseline emissions?
3. What would be the impact of using 2019 emissions only for the baseline?
4. Why is a decision needed as soon as possible

1. What is the  
(estimated)  
impact on 2020  
emissions?



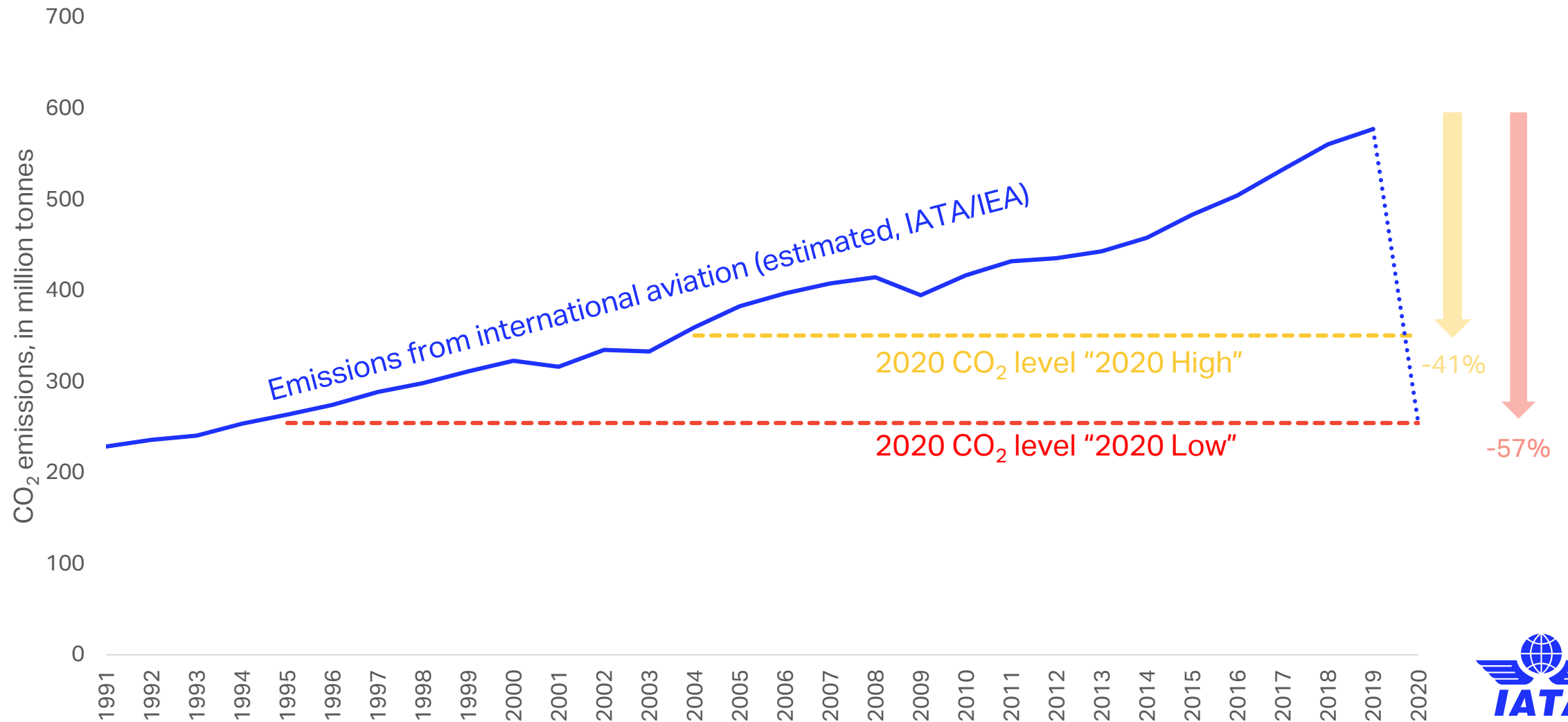
# Impacts on capacity in 2020

2020 vs 2019	"V-shaped"	"U-shaped"
Africa	-41.0%	-60.4%
Asia-Pacific	-41.4%	-60.1%
Europe	-45.8%	-64.9%
Latin America	-40.3%	-57.4%
Middle East	-40.4%	-59.0%
North America	-42.2%	-59.2%

- Impact on capacity applied to passenger, combi and business aviation only.
- Assumption is that freighter-only capacity is not affected by crisis

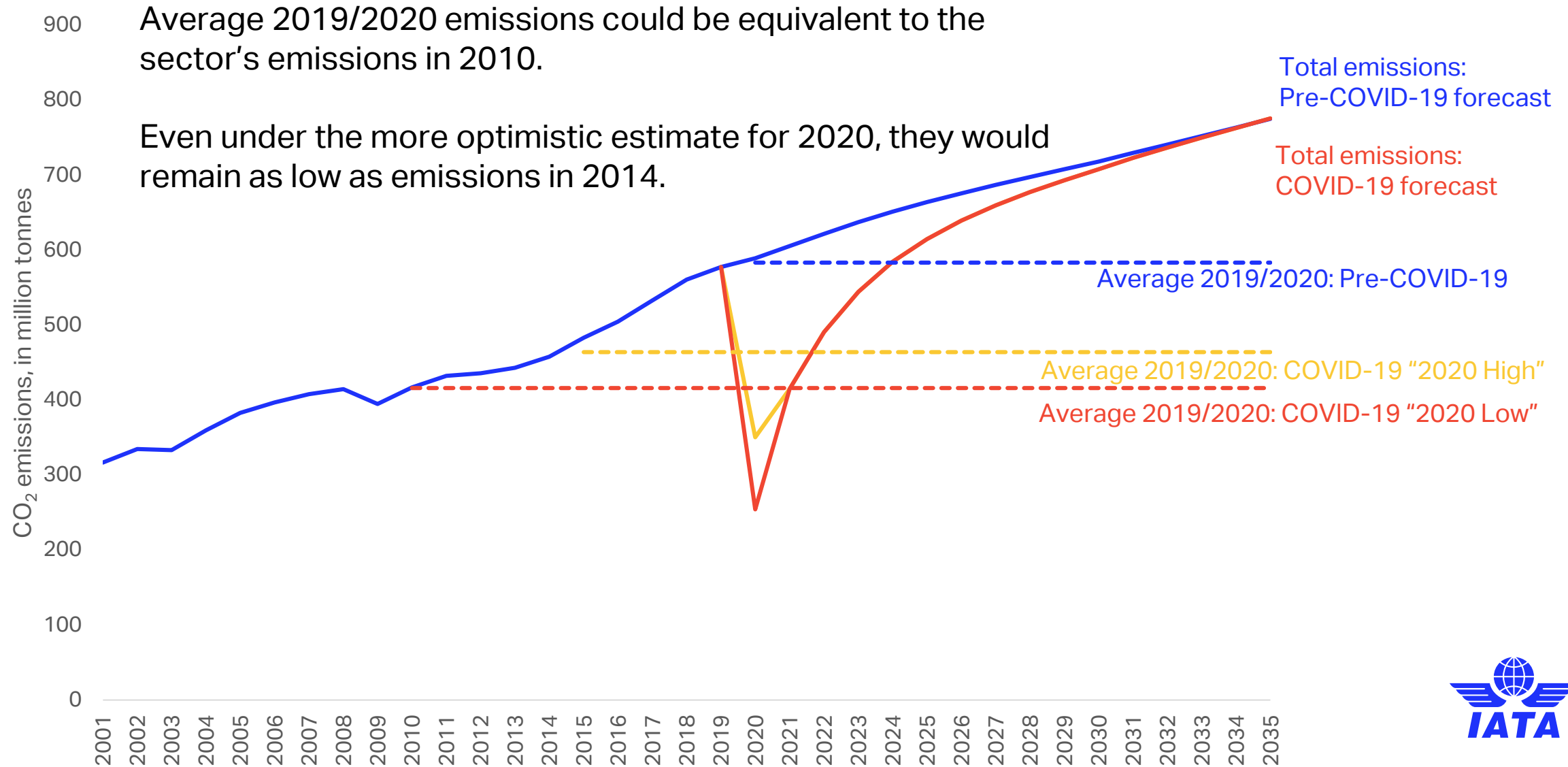
Source: ICAO 12 May 2020

# In 2020 emissions will fall to pre-2005 levels



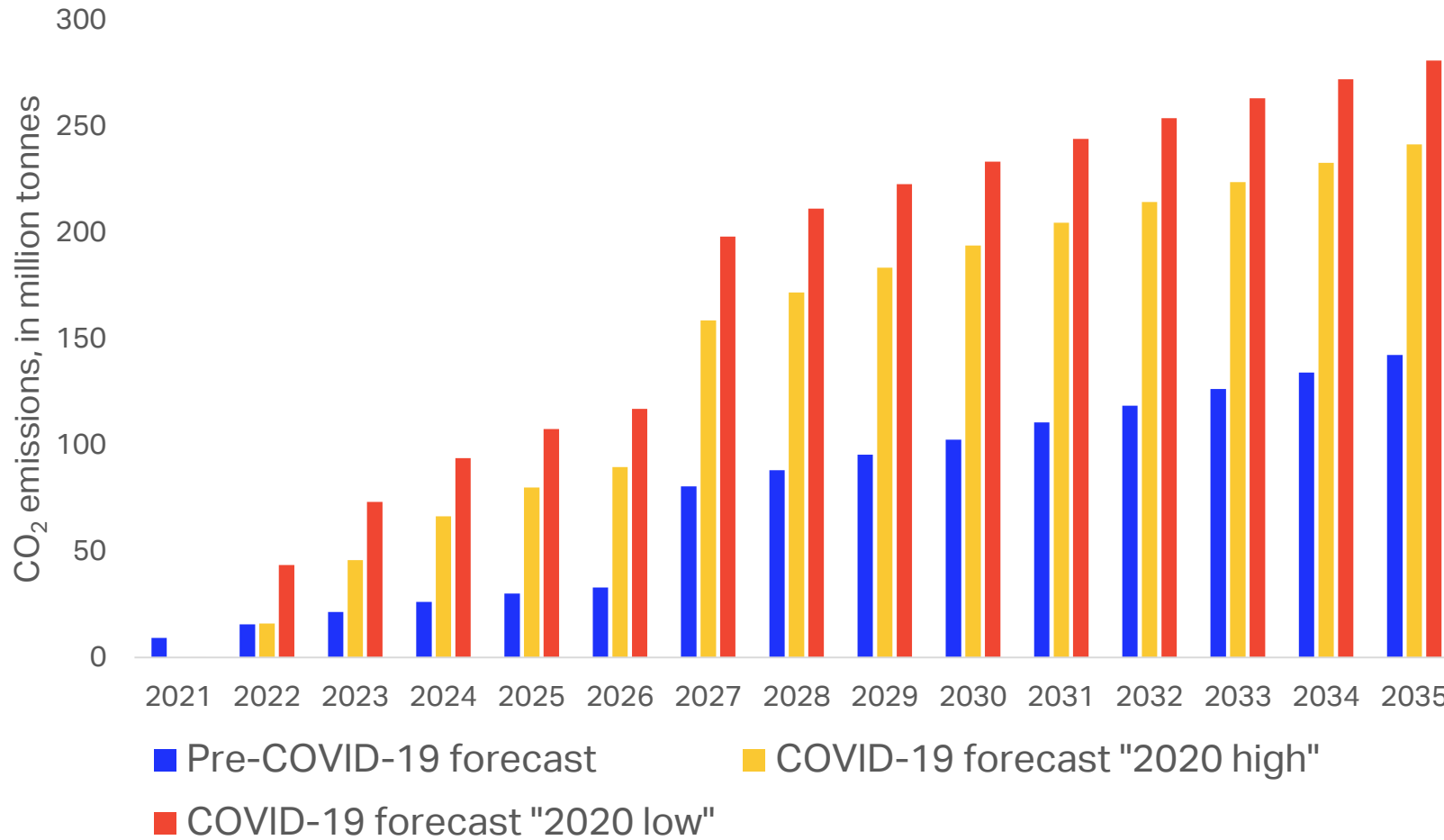
## 2. What is the impact on CORSIA's baseline emissions?

# Average 2019/2020 emissions = 2010 emissions



# Higher offsetting requirements

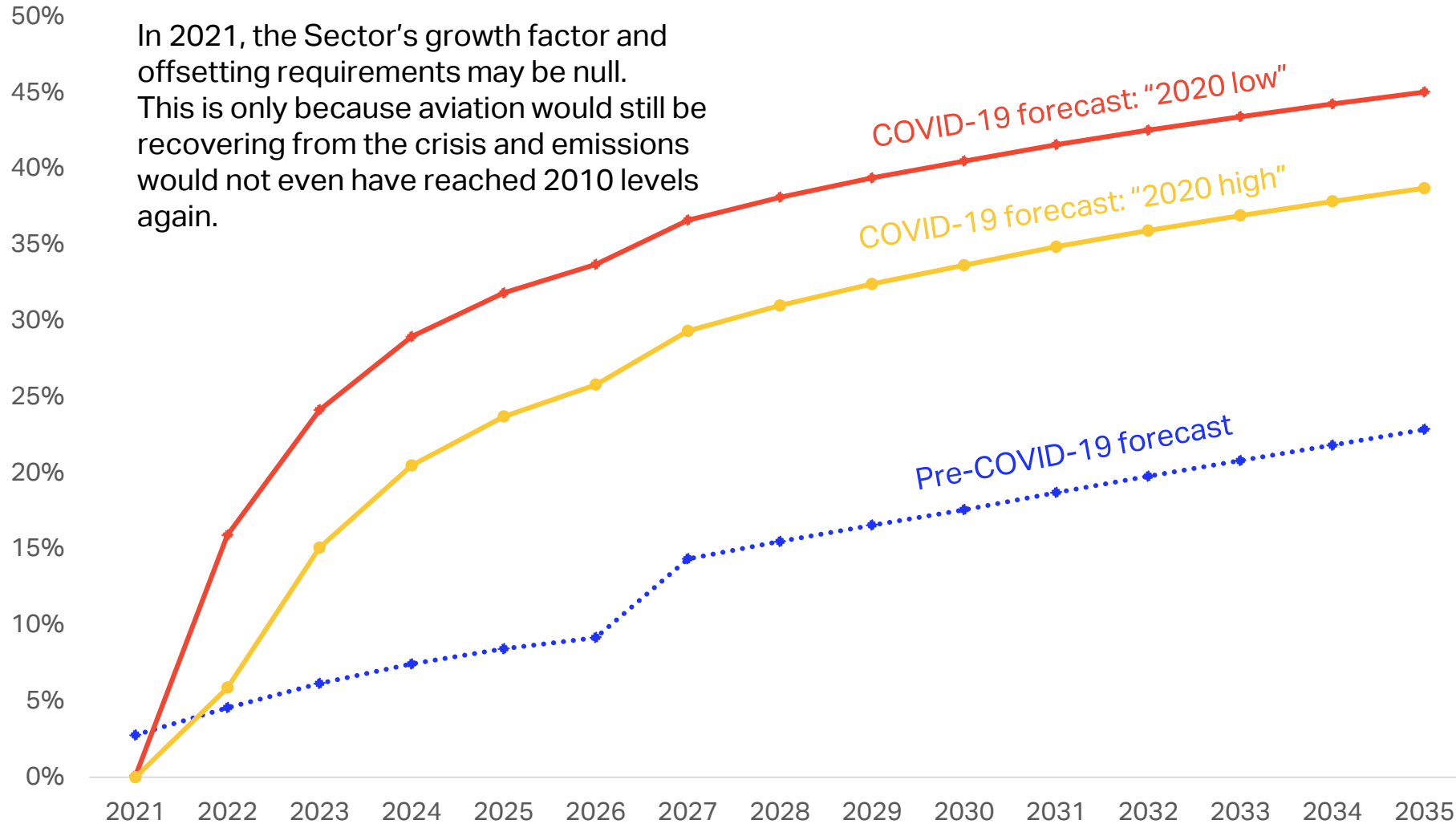
Annual offsetting requirements



Calculating offsetting requirements against average 2019/2020 emissions would significantly increase the cost of CORSIA on airlines.

Total offsetting requirements could be as much as twice higher than they would have been without the COVID-19 crisis.

# Sector's growth factor



The SGF reflects the % of emissions aviation will need to offset in each year.

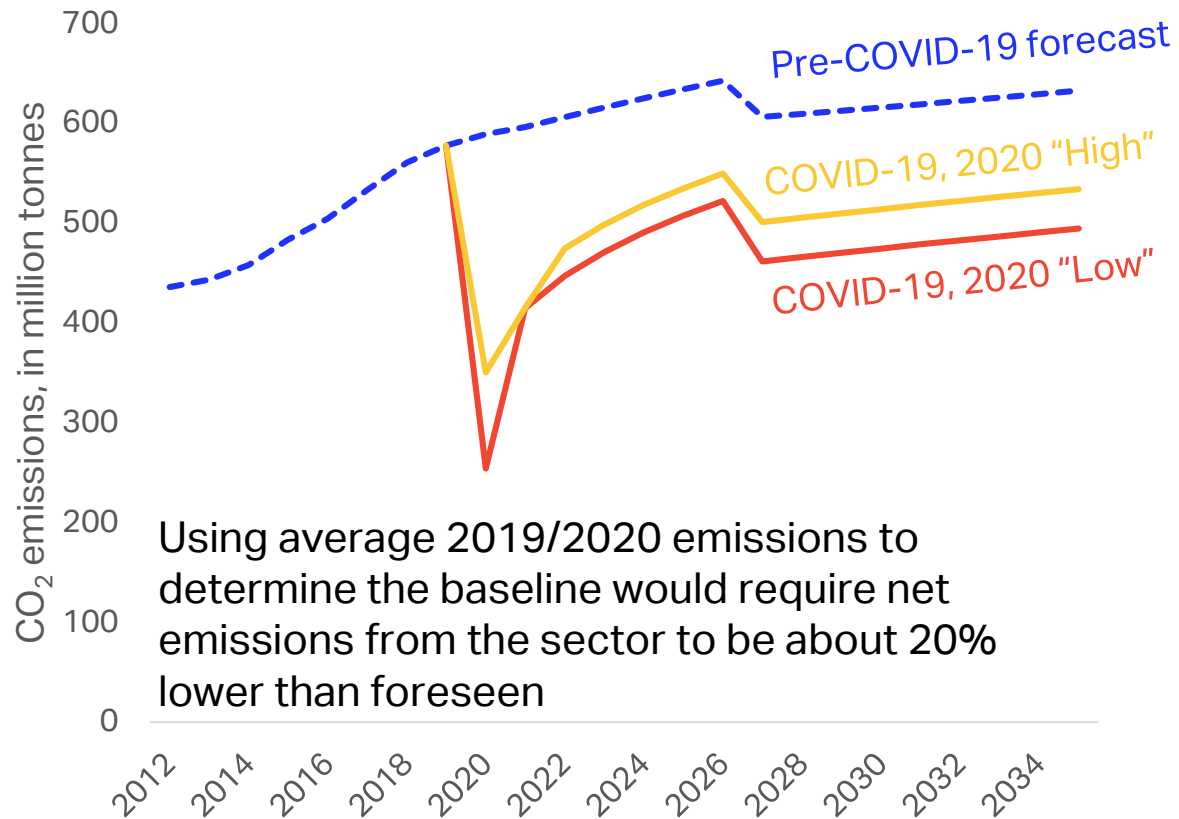
If the average of 2019 and 2020 emissions is used, the SGF could be increased by more than 20% in certain compliance years

**3. What would be the impact of using 2019 emissions alone for the baseline?**

# Net CO<sub>2</sub> emissions

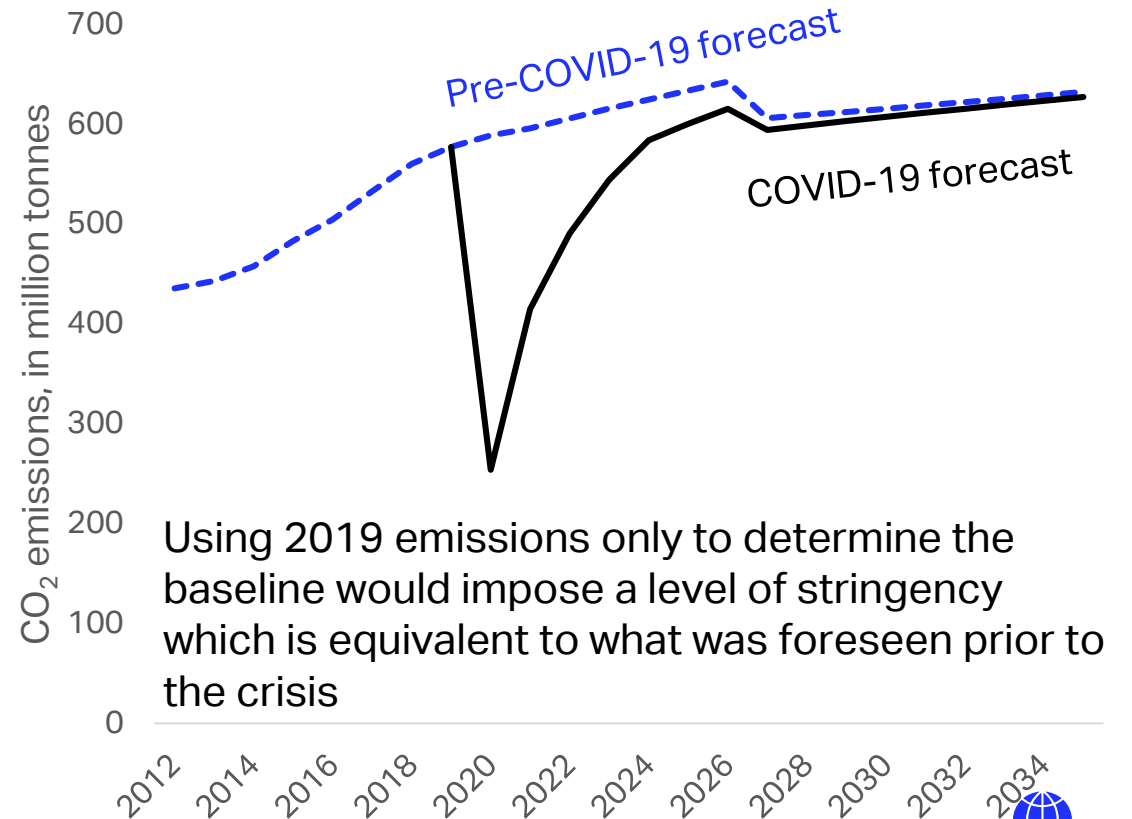
Net CO<sub>2</sub> = Actual CO<sub>2</sub> – offsetting requirements

## 2019/2020 baseline



Using average 2019/2020 emissions to determine the baseline would require net emissions from the sector to be about 20% lower than foreseen

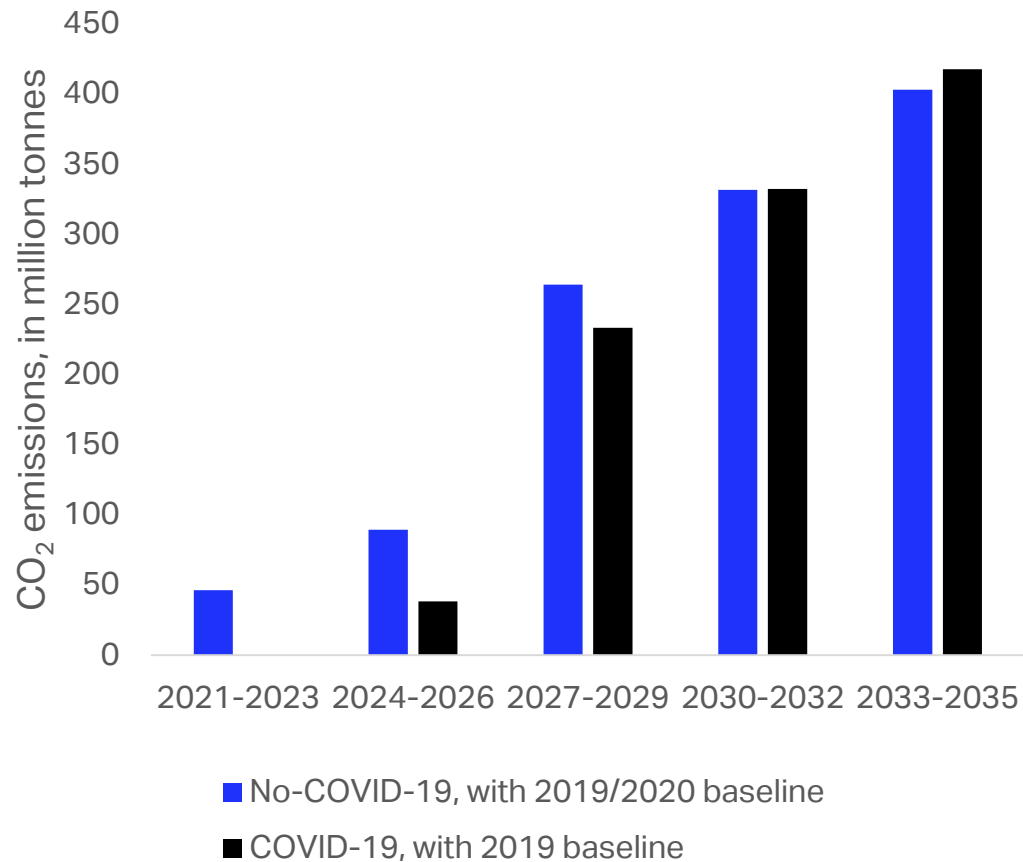
## 2019 baseline



Using 2019 emissions only to determine the baseline would impose a level of stringency which is equivalent to what was foreseen prior to the crisis



# Offsetting requirements

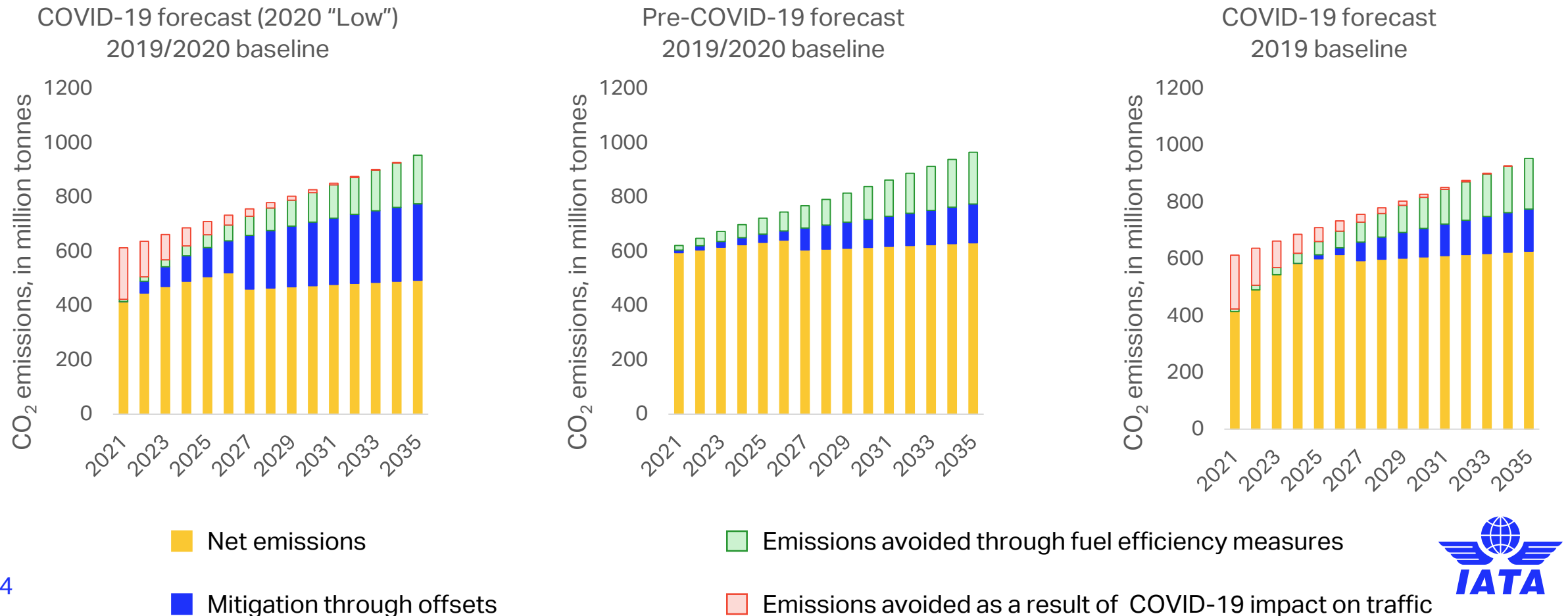


The impact of the crisis could be such that traffic (and emissions) may not recover to pre-crisis levels for a few years

This does not mean that ICAO's aspirational target is not met or that the global approach is not effective. The target will be met, even though IATA regrets that the outcome would be achieved through a reduction in traffic, rather than fuel efficiency improvements, sustainable aviation fuels or offsetting through CORSIA.

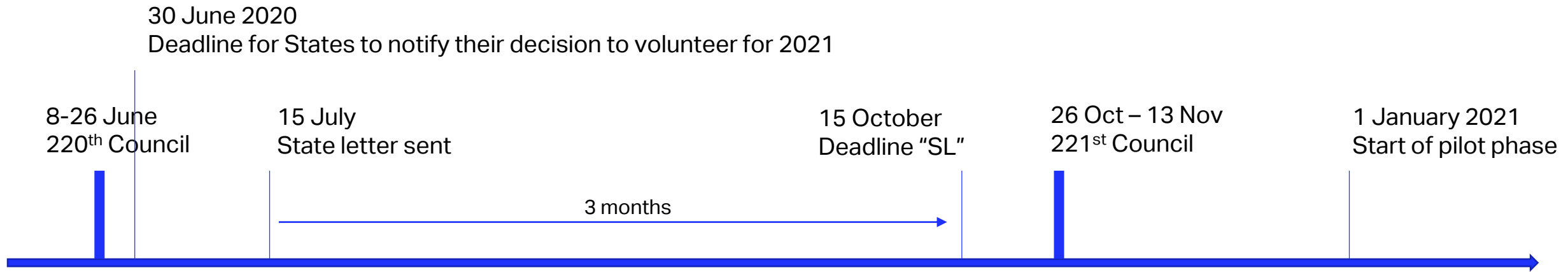
# Why are offsetting requirements lower?

Offsetting requirements in the COVID-19 forecasts are lower than in pre-COVID forecasts as a result of lower levels of traffic. Lower traffic levels lead to lower emissions and a lower need to rely on offsetting to stabilize emissions.



4. Why is a decision needed as soon as possible?

# There is no time to defer a decision



While operators may not be required to cancel eligible emissions units for the pilot phase before 2025, they must be able to estimate their offsetting requirements and plan the procurement of eligible emissions units prior to the start of the pilot phase on 1 January 2021.

# Conclusions

If 2020 emissions are used to determine baseline emissions, the emissions level that would need to be met would no longer be reflective of the aspirational goal adopted by ICAO in 2010 and supported by the airline industry.

States may be less inclined to volunteer for CORSIA and current volunteers may reconsider their earlier decisions in order to safeguard the interests of their national air transport system and its connectivity.

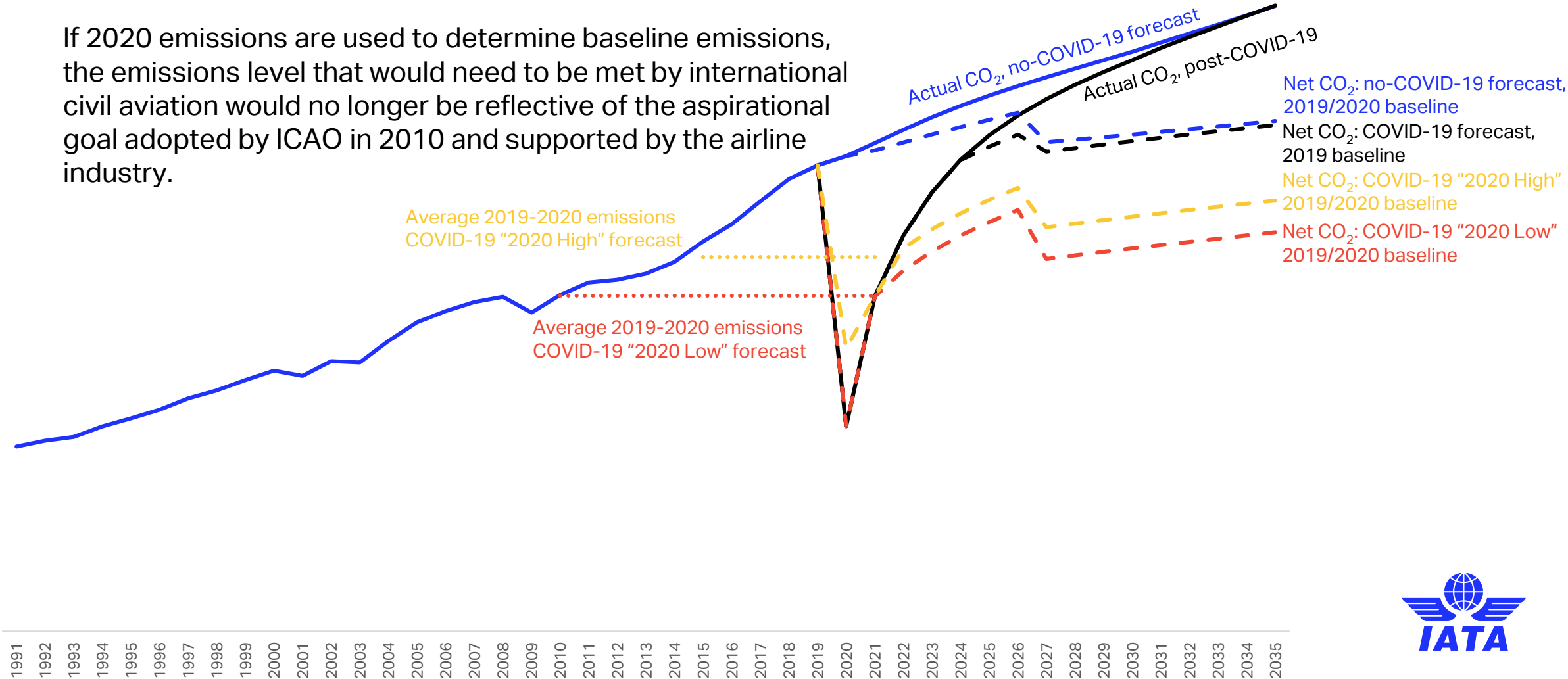
Using 2019 emissions only would preserve the environmental benefits that were forecast to be achieved through CORSIA.

# COVID-19 impact on CORSIA's baseline

900  
800  
700  
600  
500  
400  
300  
200  
100  
0

2019 emissions should be used for the determination of CORSIA's baseline emissions.

If 2020 emissions are used to determine baseline emissions, the emissions level that would need to be met by international civil aviation would no longer be reflective of the aspirational goal adopted by ICAO in 2010 and supported by the airline industry.



# Contact

[corsia@iata.org](mailto:corsia@iata.org)





## COVID-19 and CORSIA:

Stabilizing net CO<sub>2</sub> at 2019 “pre-crisis” levels, rather than 2010 levels.

The use of verified emissions from 2019 alone to establish the CORSIA baseline is a pragmatic and simple way to mitigate the extraordinary and unforeseeable impacts of the COVID-19 crisis on CORSIA. Using 2019 emissions would provide all stakeholders with the certainty and confidence required to ensure the successful implementation of CORSIA, whilst preserving the scheme’s environmental benefits of achieving carbon neutral growth. This would also maintain the level of ambition envisaged when CORSIA was adopted.

## COVID-19 and 2020 emissions

Under CORSIA, airlines are required to purchase eligible emissions units to offset increases in CO<sub>2</sub> emissions above a baseline which is currently defined as the average of emissions in 2019 and 2020. However, if 2020 emissions are used in that determination, the level of net emissions that would need to be achieved by international civil aviation will no longer be reflective of the aspirational goal adopted by ICAO and supported by the airline industry:

- The most recent estimates indicate that emissions in 2020 could drop to 250 million tonnes of CO<sub>2</sub>, which corresponds to the level of emissions some 25 years ago.
- The average of the actual emissions in 2019 and 2020 is expected to be equivalent to the sector’s total emissions in 2010.
- As a result, the CORSIA baseline would be about 30% more stringent than it would have been without the COVID-19 crisis.

IATA is highly concerned that if the level of ambition pursued through CORSIA and the cost impacts on international aviation are much higher than originally forecast, states may be less inclined to volunteer for CORSIA and indeed current volunteers may reconsider their earlier decisions in order to safeguard the interests of their national air transport systems and global connectivity. Calculating offsetting requirements against reference emissions which are 30% lower than pre-crisis levels would considerably increase the cost of airline compliance in all phases of CORSIA. This would be particularly challenging for an industry striving to recover from the financial impacts of an unprecedented crisis.

## Effectiveness and ambition of CORSIA

The effectiveness of CORSIA must be measured against the goal that prompted its adoption, namely ICAO’s global aspirational goal to stabilize emissions from international aviation:

- Using 2019 emissions will maintain a level of ambition comparable to that which underpinned CORSIA’s adoption: net emissions will be stabilized at a level close to the pre-crisis forecast of around 600 million tonnes of CO<sub>2</sub>.
- Using 2019 emissions will not impact the effectiveness of CORSIA: the 40<sup>th</sup> ICAO Assembly emphasized that “...the role of CORSIA is to complement a broader package of measures to achieve the global aspirational goal...”, thereby underlining the subsidiary nature of offsetting to the primary objective of in-sector emissions reductions.





It is imperative that the success of CORSIA is measured by the scheme's ability to stabilize net emissions in the mid-term (carbon neutral growth), rather than by the volume of carbon offsets that are required to comply with the scheme. If emissions from international aviation do not exceed 2019 levels in the early years due to a sluggish recovery, this should not imply that CORSIA is ineffective or lacks ambition. On the contrary, actual emissions would remain below the intended baseline, reducing or eliminating the need to rely on offsetting. However, IATA would regret that the outcome would not be achieved solely through advances in technology, more efficient operations, or increasing availability of sustainable fuels; but mainly as the result of significantly lower levels of traffic and an industry struggling to recover.

It should be emphasized that CORSIA was never envisaged as a mechanism for financing the carbon markets beyond what is necessary to offset the sector's emissions above the baseline. Maintaining the current baseline methodology on the justification that offsetting requirements would otherwise not be "sufficient" would go well beyond ICAO's aspirational target and likely raise widespread concerns as to the intent of CORSIA.

## There are no other workable solutions

IATA's recommendation to use 2019 emissions for the determination of CORSIA's baseline is a pragmatic and simple approach to an extraordinary situation. Some have put forward the alternative method to calculate offsetting requirements during the pilot phase, as foreseen in Paragraph 11 e) i) b) of Assembly Resolution A40-19, as a suitable option to address the impacts of COVID-19 on CORSIA. However, the reality is that it would only provide some marginal relief for airlines in the first 3 years of the scheme and would not address the increased impact on airlines in any of the subsequent compliance periods.

## The urgent need for clarity

IATA urges ICAO to reach a decision on this matter during the Council's 220<sup>th</sup> session in June 2020 in order to allow the necessary amendments to Annex 16, volume IV to be adopted in time for the pilot phase.

As of today, the only certainty for the sector is that the impacts of the COVID-19 crisis on international civil aviation are severe. The speed at which aviation markets will recover around the world will be dependent upon a wide variety of factors, including the severity of the pandemic within a particular country or region, the type of restrictions imposed in response to the pandemic, the rate at which those restrictions are removed, policy responses to support the aviation industry and the underlying types of demand that drive different markets.

Regardless of the near-term outlook for the aviation industry, what is important from an environmental perspective is that net emissions are stabilized from 2021 at pre-crisis levels to ensure ICAO's aspirational target can be met. Using 2019 emissions only will achieve this and the verified emissions for 2019 will be available in the coming months. In contrast, deferring a decision until verified emissions for 2020 (or later years) are available would unnecessarily delay a decision on the baseline.

Operators must be able to estimate their offsetting requirements and plan the procurement of eligible emissions units prior to the start of the pilot phase on 1 January 2021:

- Deferring the decision to a later date would create regulatory uncertainty and impact the stakeholder and market confidence that is required for the successful implementation of CORSIA;
- Deferring the decision would mean that the baseline would be confirmed only after the pilot phase has already begun, resulting in airlines being subject to a compliance mechanism whose scope is unclear and without knowing the level of stringency they will have to comply with.

s22

**From:** s22  
**Sent:** Wednesday, 20 May 2020 8:48 PM  
**To:** s22  
**Cc:** WOLFE Jim  
**Subject:** Points on CORSIA for AGC discussion [SEC=OFFICIAL]

## OFFICIAL

Hi s22

As foreshadowed, some suggested points on the CORSIA baseline and verification timeframes.

s47C and 33

s47C

- If the preference is for an immediate decision, we would support using a 2019 only baseline.
  - The objective of the CORSIA is carbon neutral growth from 2020. This decision was made by the international community on the basis of continued strong growth in international aviation. A scenario like COVID-19 was simply never factored in to considerations.
  - Retaining a 2019-20 average creates an artificial low baseline and significantly increase offsetting requirements over the life of the scheme, which does not appear to be in keeping with the spirit of the initial agreement to CORSIA.
  - A 2019-only baseline ensures that we don't excessively burden our airlines during what will be a challenging COVID-19 recovery phase.
  - If airlines don't end up with any offsetting requirements over the pilot phase, it is only because the industry is emitting far less than it otherwise would have.
- The paper urges States to meet the existing reporting timeframe for 2019 emissions data, unless they experience specific obstacles to doing so.
  - We don't see that there is a particular urgency for State data to be submitted by 31 August.
  - An extension across the board would reduce the pressure to complete verification activities at a time when many airlines have significant reduced financial and staffing resources.

- Data quality, which is particularly critical if we have a 2019-only baseline, could be compromised if a significant number of airlines are unable to complete reporting in time and States resort to estimation using the CERT tool.

Happy to discuss.

Regards,

s22

OFFICIAL

s22

**From:** s47F@qantas.com.au>  
**Sent:** Wednesday, 27 May 2020 8:59 AM  
**To:** s22  
**Subject:** RE: CORSIA discussion [SEC=OFFICIAL]

Hi s22

Many thanks for sending through this information and for the time on the phone on Monday. Much appreciated.

That table does make it much easier to understand – thank you!

I'd be happy to jump on a call if there are any other issues that arise before the June Council meeting. Otherwise, look forward to hearing how the discussion progresses.

Best

s47F

**From:** s22 t@infrastructure.gov.au>  
**Sent:** Monday, 25 May 2020 5:02 PM  
**To:** s47F@qantas.com.au>  
**Cc:** s22@infrastructure.gov.au>  
**Subject:** RE: CORSIA discussion [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Further to our discussion this morning, please find attached the CAEP analysis to help inform Council's decision-making on the baseline.

In relation to the issue of choice of reference year, the following is a rough example of how those calculations could work. This is based on a 2019-20 baseline, and without assuming COVID impacts, but the general principles still apply.

	2019	2020	Ave. 2019-20	2021	2022	2023
Global aviation emissions	99	101	100	103	105	107
SGF = Growth from baseline				3%	5%	7%
Operator emissions	9	10		11	12	13
Apply SGF to 2020 emissions				0.03*10= 0.3	0.05*10= 0.5	0.07*10= 0.7
Apply SGF to emissions in year				0.03*11= 0.33	0.05*12= 0.60	0.07*13= 0.91

If you have any queries, please let us know.

Kind regards,

s22

A/g Assistant Director |  
International Air Transport and  
Trade  
Aviation Industry Policy | Aviation  
and Airports  
Department of Infrastructure,  
Transport, Regional Development  
and Communications

s22



**Australian Government**

**Department of Infrastructure, Transport,  
Regional Development and Communications**

GPO Box 594, Canberra ACT 2601

*The department proudly acknowledges the Traditional Owners and Custodians of Australia, and their continuing connections to the land, waters and communities. We pay our respects to them and to their Elders past, present and emerging.*

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**From:** s47F t@gantas.com.au>

**Sent:** Friday, 22 May 2020 8:58 AM

**To:** s22 @infrastructure.gov.au>

**Cc:** s22 @infrastructure.gov.au>

**Subject:** RE: CORSIA discussion [SEC=OFFICIAL]

**Importance:** High

Hi s22

Hope this finds you well!

We've received some reports from IATA that ICAO is resistant to changing the CORSIA baseline this year and will present a paper to this effect at the June Council session (see below). Are you aware of this? Could we have a quick chat either today or Monday to discuss? This is obviously of great concern to us and would appreciate any update you can provide!

Ross had also mentioned that you were expecting to receive analysis from CAEP to assist in the government position on the baseline in May – have you received that? Is there anything you can share?

s47  
F

We understand that the ICAO Secretariat will present a paper to the June Council session which argues the following:

***A change to the baseline needs to be decided by the next Session of the ICAO Assembly in 2022.***

- IATA does not agree with this interpretation of Assembly Resolution A40-18. Paragraph 16 calls on the Council to provide for safeguards in the CORSIA against inappropriate economic burden on international aviation. In addition, before the amendment to Annex 16 can be adopted, the Council will probably need to consult all States through the usual "State Letter" process.
- Furthermore, if ICAO is successful in deferring a decision to a later time, it is very likely that reaching an agreement on the baseline will be much more difficult: many States will be less inclined to support the industry when the industry will have overcome the worst of the crisis and there is a higher risk that other alternative proposals will be introduced, making consensus much harder to reach.
- Obviously, for airlines it also means that it will be impossible to start planning offsetting requirements before the end of 2022.

**Changing the baseline would bring “consequential reputational risk on ICAO in terms of leadership and CORSIA as the only global scheme**

- IATA does not agree that CORSIA was intended to “protect” ICAO from reputational risk. The sole purpose of CORSIA is to stabilize net emissions from international civil aviation from 2021, if in-sector measures are not sufficient to achieve carbon neutral growth. It was never intended to be a “communications” tool for the ICAO Secretariat.

**A decision to change the baseline must be taken on the basis of actual data for the recovery period**

- We disagree that data for the recovery is needed. Data for the recovery is only needed to get clarify on offsetting requirements, but the purpose of CORSIA has never been to generate a certain volume of offsetting requirements. CORSIA was always foreseen to be a gap-filler to ensure net emissions are maintained at baseline levels. Therefore, the only data which matters is the data used to define the baseline and there cannot be any reasonable doubt that (1) 2019 emissions will reflect pre-crisis levels at which emissions should be stabilized, (2) using 2020 would fundamentally change the target agreed in ICAO, forcing airlines to achieve carbon neutral growth using emissions levels which are equivalent to the sector’s levels in 2010. It should also be noted that the original baseline calculation was decided on the basis of forecast rather than actual data.

**The negative impacts of deferring a decision can be “mitigated” by allowing States to use the operators’ 2020 emissions to calculate offsetting requirements in the pilot phase.**

- IATA believes this is highly misleading as it seems to imply that using 2020 emissions to calculate offsetting requirements (instead of emissions in 2021, 2022 and 2023) will provide tangible relief. This option does not change the baseline of Sector’s growth factor and it will not be sufficient to compensate for the increase in the Sector’s growth factor which is expected to increase by as much as 3 times in 2022 and 4 times in 2023.
- Many States have already confirmed that they will not use this option. Their operators will therefore be heavily penalized compared to operators based in States which may chose this option at the last minute. This would result in very high market distortions.

**Airlines could pay a fee on emissions units transactions to fund the activities of the ICAO Secretariat**

- In addition to the arguments of the ICAO Secretariat against using 2019 as baseline, the ICAO Secretariat is also proposing to impose a fee on each eligible emissions unit sold to fund the activities of the ICAO Secretariat.

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**From:** s22 @infrastructure.gov.au>  
**Sent:** Thursday, 26 March 2020 12:04 PM  
**To:** s47F qantas.com.au>  
**Cc:** s22 @infrastructure.gov.au>  
**Subject:** RE: CORSIA discussion [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thanks for your time on the phone.

As discussed, the Department confirms that we can initially offer an extension on the due date for Australian airlines’ verified 2019 emissions reports to **31 July 2020** (currently 31 May). If there is a wider decision at the ICAO level to extend deadlines for airline and/or state reporting requirements, we will update you accordingly.

In relation to the baselines, we note Qantas’ suggestion that 2019 only be used as the baseline year, and will be sure to keep you in the loop as these issues are worked through within ICAO.

Kind regards,

s22

A/g Assistant Director |  
International Air Transport and  
Trade  
Aviation Industry Policy | Aviation  
and Airports  
Department of Infrastructure,  
Transport, Regional Development  
and Communications

s22



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*The department proudly acknowledges the Traditional Owners and Custodians of Australia, and their continuing connections to the land, waters and communities. We pay our respects to them and to their Elders past, present and emerging.*

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**From:** s47F <[s47F@gantas.com.au](mailto:s47F@gantas.com.au)>

**Sent:** Monday, 23 March 2020 3:00 PM

**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>

**Subject:** CORSIA discussion

Hi s22

Would you have any availability for a quick discussion on CORSIA reporting and baselines over the next day or two?

Hope you're staying safe and healthy!

Best

s47F

[qantas.com](http://qantas.com) | [facebook.com/qantas](https://facebook.com/qantas) | [twitter.com/qantasairways](https://twitter.com/qantasairways) | [youtube.com/qantas](https://youtube.com/qantas)



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ICAO

ENVIRONMENT

# Advisory Group on CORSIA (AGC)

AGC/22 Meeting

21 May 2020

## Scenario Based Analyses of Potential Impacts of Covid19 on CORSIA

Presented by CAEP



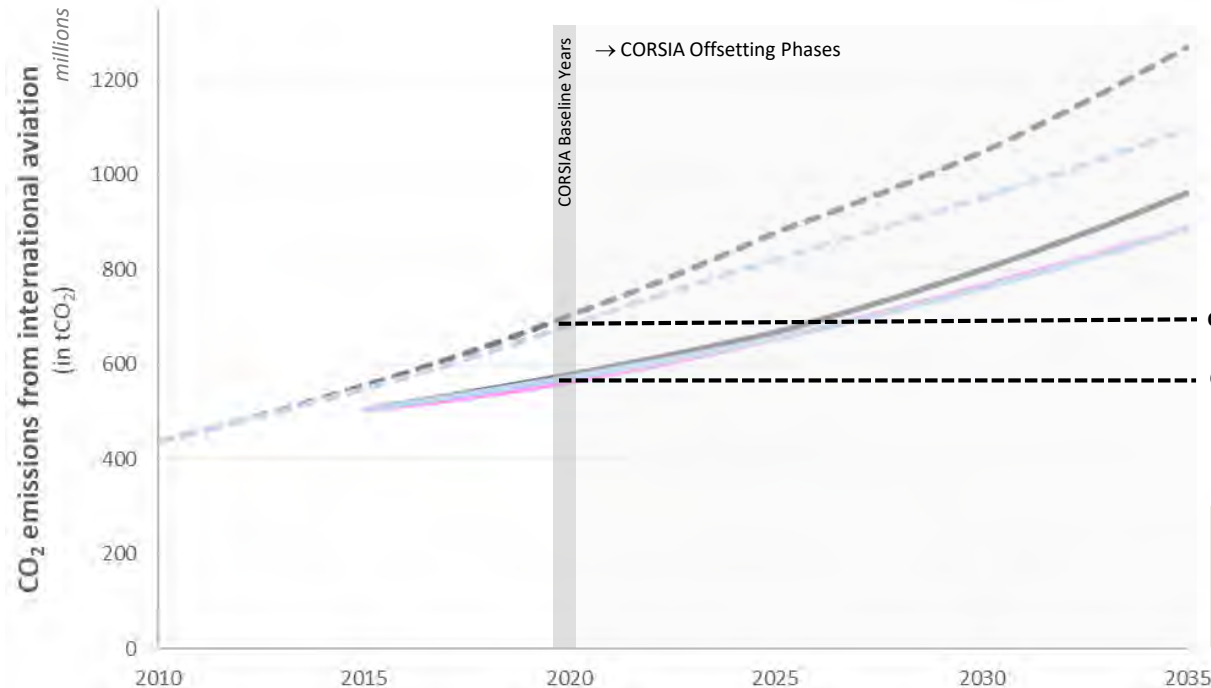


- **Due to the evolving situation of Covid19 impacts on aviation and short timeline to conduct analyses, this first phase of analyses includes several simplifying assumptions;**
  - Results are only for the purpose of order magnitude and bounding assessments of the potential impacts of Covid19 on CORSIA.
  - Given the uncertainty associated with the impact of Covid19 on aviation activity and its recovery, the “Covid19 scenarios” are not meant to be forecasts with an assigned likelihood.
  - FESG provided Covid19 traffic and fuel scenarios at global (international + domestic) level. This implies a uniform impact for domestic and international aviation. However, international aviation may be impacted more than domestic traffic.
  - Impact may not be uniform across all regions or categories of aeroplane operators and the recovery will not be identical for all. Therefore, conclusions on the impacts at global level cannot be interpreted as reflecting the impacts on individual aeroplane operators.
  - Passenger and freight (i.e., cargo) were assumed to be impacted differently under Covid19 scenarios.
  - FESG’s conversion of capacity (ATK) to fuel burn (or CO<sub>2</sub> emissions) forecasts assume linear fuel efficiency (Fuel/ATK) function. However, it is possible that the crisis could have disruptive non-linear impacts on fuel efficiency of fleet.
- **Analyses are expected to be fit for purpose (i.e., to provide an order magnitude of potential impact as requested by CAEP). However, given the level of uncertainty remaining, these scenarios are inevitably speculative, and the analysis may therefore not be suitable for other purposes at this time.**
- **Potential next steps on this work item include;**
  - updating analysis with refined scenarios from FESG,
  - regions/route type (international/domestic), and fleet mix changes could be captured in subsequent updates, and
  - refining methodologies and analyses to reflect latest available information.

# Context for the Development of CORSIA

- The role of CORSIA is to complement a broader package of measures to achieve the global aspirational goal of keeping the global net CO<sub>2</sub> emissions from international aviation from 2020 at the same level\*.

\* Assembly Resolution 40-19, paragraph 3 and 4



## CO<sub>2</sub> Emissions Trends:

Sources and Scenarios

**CAEP/10 – Less Optimistic**

CAEP/10 – Optimistic

**CAEP/11 – Less Optimistic**

Assembly 40

CAEP/11 – Optimistic

Information available in 2013 (A38 trends) and confirmed in 2016 (A39 trends)

Information available in 2019 (A40 trends)

CO<sub>2</sub> emissions anticipated in 2020 based on Assembly 39 (CAEP/10) trends

CO<sub>2</sub> emissions anticipated in 2020 based on Assembly 40 (CAEP/11) trends

Note 1. - The CO<sub>2</sub> emissions trends between CAEP/11 trends (ref. A40-WP/54) and CAEP/10 trends (ref. A39-WP/55) are lower due "to a combination of more fuel-efficient aircraft entering the fleet, as well as a reduction in the forecasted long-term traffic demand".

Note 2. - CAEP/12 trends are being developed by CAEP (FESG and MDG).

# Introduction

## Context for the Development of CORSIA

### Key Takeaways:

- In 2016, Assembly 39 (CAEP/10) when CORSIA was developed, emissions from international aviation\* were anticipated to be  $\approx 700 \text{ MtCO}_2$  in 2020, with estimated cumulative offsetting requirement of  $\approx 2.5 \text{ GtCO}_2$  until 2035.
- In 2019, Assembly 40 (CAEP/11) environmental trends\*\* projected a growth of international aviation  $\text{CO}_2$  emissions of  $\approx +2.6\%$  from 2019 to 2020. Emissions in 2020 were revised to  $\approx 580 \text{ MtCO}_2$ , with estimated cumulative offsetting requirement of  $\approx 1.7 \text{ GtCO}_2$  until 2035.

\* Optimistic (ICAO CAEP/10 Scenario 9) scenario i.e., Optimistic Aircraft Technology and CAEP/9 IE Operational Improvements.

\*\* Optimistic (ICAO CAEP/11 Fuel 5) scenario i.e., Optimistic Aircraft Technology and CAEP/9 IE Operational Improvements.

- Before the COVID-19 crisis, the assumption was that “pre-2021” emissions would be the highest in 2020 and continue to increase thereafter.
- Covid19 has resulted so far in a sharp decline in aviation activity and expected resulting drop in CO<sub>2</sub> emissions in 2020.
- This was not anticipated when CORSIA was developed in 2015-2016.
- Lower levels of CO<sub>2</sub> emissions in 2020 could influence the magnitude of offsetting requirements (i.e., demand for emissions units) during the Pilot Phase and/or through 2035 through several mechanisms:
  - A** Baseline: Average of total sectoral CO<sub>2</sub> emissions during 2019 and 2020 on State-pairs subject to offsetting requirements in the given year y. [A40-19 11.b) and c) - Annex 16 Volume IV, 3.2.1-3.2.2]
  - B** Reference for Operator’s Emissions (OE) for calculating Offsetting Requirements during the Pilot Phase i.e., Operator’s emissions in year y (OE<sub>y</sub>) or Operator’s emissions in 2020 (OE<sub>2020</sub>) [A40-19 11.e) i) - Annex 16 Volume IV, 3.2.1]
  - C** Threshold for New Entrants’ exemptions for offsetting requirements defined as 3-year grace period or when the operator’s emissions reach 0.1% of 2020 sectoral emissions whichever comes first [A40-19 12) - Annex 16 Volume IV, 3.1.2].

**Key question: What could be the potential impacts of Covid19 on CORSIA?**

# Key Questions Answered by WG4

## Effect of...

**A**

Baseline

- **Question #1:** Given scenarios of CO<sub>2</sub> emissions trends (with and without Covid19 impacts), what would be the demand for emissions units during the Pilot Phase and through 2035.
- **Question #2:** How would potential amendments to reference years for baseline emissions (average of 2019-2020, 2019, etc.) affect demand for emissions units during the Pilot Phase and through 2035.

**B**

Reference for Operator's  
Emissions for calculating  
Offsetting during the Pilot

- **Question #3:** How would the choice of reference (year) for Operator's Emissions (OE) for calculating offsetting requirements affect demand for emissions units during the Pilot Phase.

**C**

Threshold for New  
Entrants' exemptions for  
offsetting requirements

- **Question #4:** How could the decline in 2020 emissions affect the exemptions from offsetting requirements for potential future New Entrants.

*\* Note. – Questions 1, 3 and 4 were analyzed based on Annex 16 Volume IV (i.e., assuming no changes). Question 2 represents a sensitivity analysis that would require a change to Annex 16 Volume IV.*

- **ICAO/ADAP Long-term Traffic Forecast (LTF) and CAEP have started to assess the potential impacts of Covid19 on aviation traffic, capacity and fuel burn (referred to as “Covid19 scenarios”).**
- **The WG4-CTAG-CORSIA Analyses subgroup has taken these scenarios as input to the scenario-based analyses of potential impacts of Covid19 on CORSIA.**
- **The CORSIA Analyses task group used its CORSIA models to quantify the impact of Covid19 scenarios on potential offsetting requirements (i.e., demand for emissions units).**

## Question #1:

Given scenarios of CO<sub>2</sub> emissions trends (with and without Covid19 impacts), what would be the demand for emissions units during the Pilot Phase and through 2035\*.

### Answers:

- Covid19 is having an unprecedented impact on aviation. CO<sub>2</sub> emissions could decline by **≈ -33 %** from 2019 to 2020 (≈ 400 MtCO<sub>2</sub> in 2020).
- This would result in a **CORSIA baseline** (defined as the average of 2019 and 2020 emissions) **lower by ≈ 18%** (vs. CAEP/11).
- That lower baseline could result in a substantial impact on total offsetting requirements;
  - Pilot Phase (2021-2023): from **+180%** (≈ 100 MtCO<sub>2</sub> until 2023) in a V-shaped recovery scenario **to +50%** (≈ 55 MtCO<sub>2</sub> until 2023) in a U-shaped recovery with permanent loss scenario.
  - All Phases (2021-2035): from **+45%** (≈ 2.5 GtCO<sub>2</sub> until 2035) in a V-shaped recovery scenario **to -24%** (≈ 1.3 GtCO<sub>2</sub> until 2035) in a U-shaped recovery with permanent loss scenario.



# CAEP-FESG: COVID-19 Scenarios

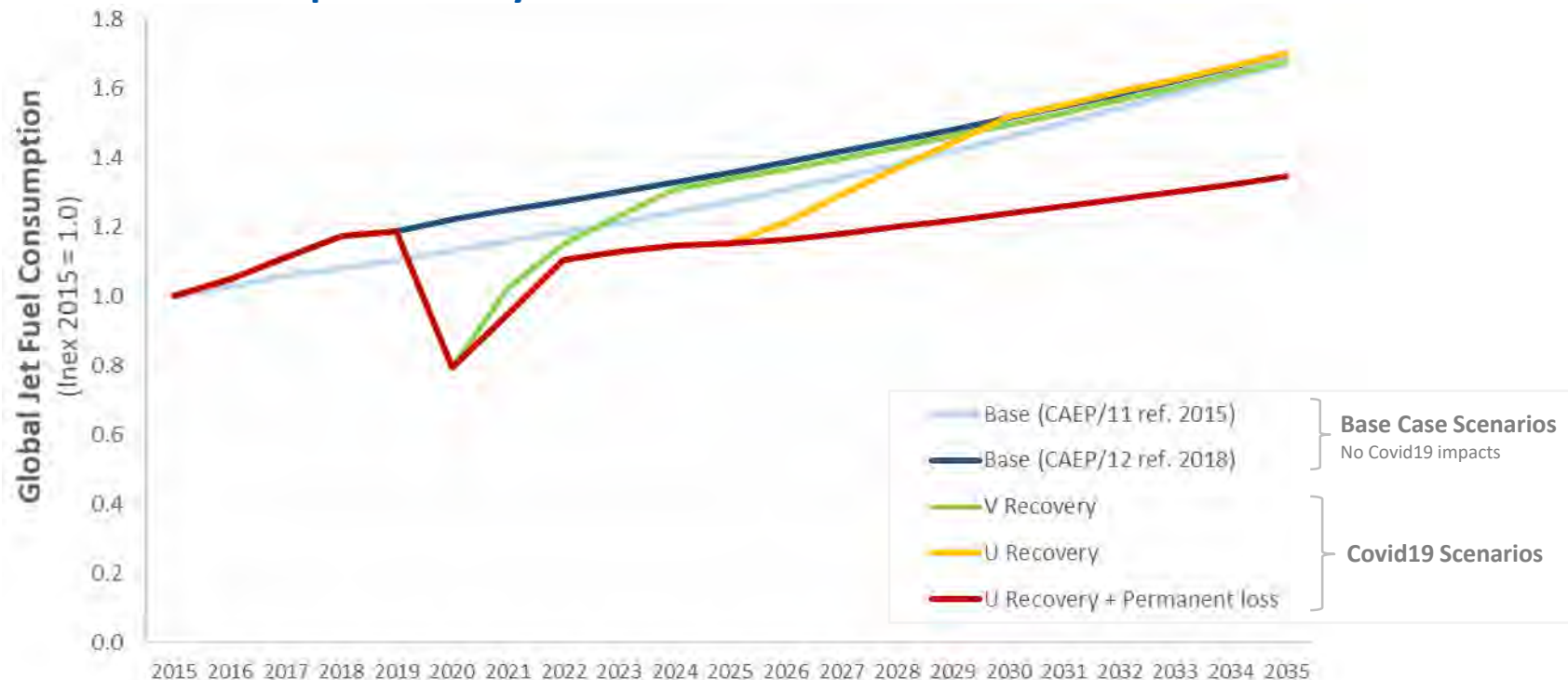
Scenario	Description
<b>V-Shaped Recovery</b>	<p>Sharp decline in 2020 demand, with social distancing measures relaxed in summer 2020 and gradually removed. Economic recession is short lived (2 - 3 quarters), but it is not until the end of 2021 until the world economy is back to pre-crisis levels of activity. Aviation demand lags economic recovery and passenger demand returns to pre-crisis levels on an annual basis in 2022 as consumer confidence about aviation is restored. Freight demand returns to pre-crisis levels in 2022 as well. Beyond 2022, passenger demand continues to grow at above trend rates and returns to pre-crisis forecast trend line by 2024. Cargo demand remains slightly below pre-crisis forecast trend line throughout remainder of forecast period.</p>
<b>U-Shaped Recovery</b>	<p>Sharp decline in demand in 2020 with social distancing measures relaxed beginning in summer 2020, but pace of removal is slower than in V-recovery scenario as it takes longer to bring COVID-19 under control. Economic recession is short lived (2 - 3 quarters) but given longer time to bring COVID-19 under control the recovery is slow and intermittent and may take till 2022 or 2023 to bring economies back up to pre-crisis levels of activity.</p> <p>Aviation demand lags economic recovery given the magnitude of the downturn and the longer time to bring COVID-19 under control. Passenger demand returns to pre-crisis levels in 2025. Freight demand returns to pre-crisis levels in 2023. Beyond 2025, passenger demand continues to grow at above trend rates and returns to pre-crisis forecast trend line by 2030. Cargo demand remains slightly below the V-shaped recovery until 2030 and then is same as V-shaped recovery for remainder of forecast period.</p>
<b>U + Permanent loss Recovery</b>	<p>Passenger demand assumed to be same as in U-shaped recovery until 2025. Thereafter the forecast growth rates in this scenario are assumed to be same as in proposed 2018 ICAO LTF low scenario. The scenario assumes that a permanent change in travel behavior of both consumers and business takes place, for example, businesses are more willing than in past to accept substitutes for business travel such as video conferencing.</p> <p>Cargo demand similar to U-shaped recovery up to 2025 but thereafter grows at slower rate than in U-shaped recovery as slower passenger traffic and capacity growth results in slower belly cargo growth compared to U-shaped recovery.</p> <p>By end of forecast, passenger and cargo demand are lower than V-shaped or U-shaped recovery scenarios by about 27% and 5.5% respectively.</p>

See Appendix for details on scenarios including associated trends in RTK, FTK, ATK and Fuel.

Note: As more data becomes available scenarios will be refined; Scenarios incorporating regions/route type and fleet mix changes will be captured in subsequent updates.



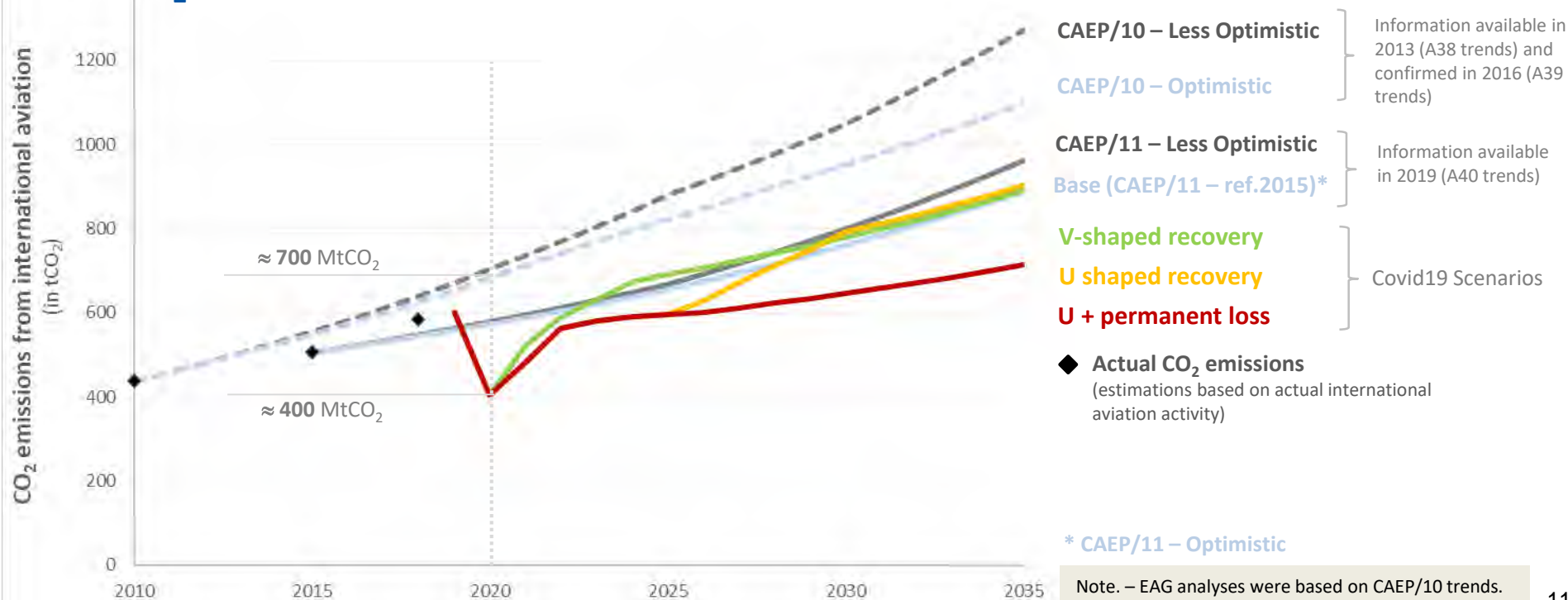
- Scenarios of fuel burn from global (i.e., domestic and international) aviation with and without Covid19 provided by CAEP-FESG.





# 2020 CO<sub>2</sub> Emissions in Context

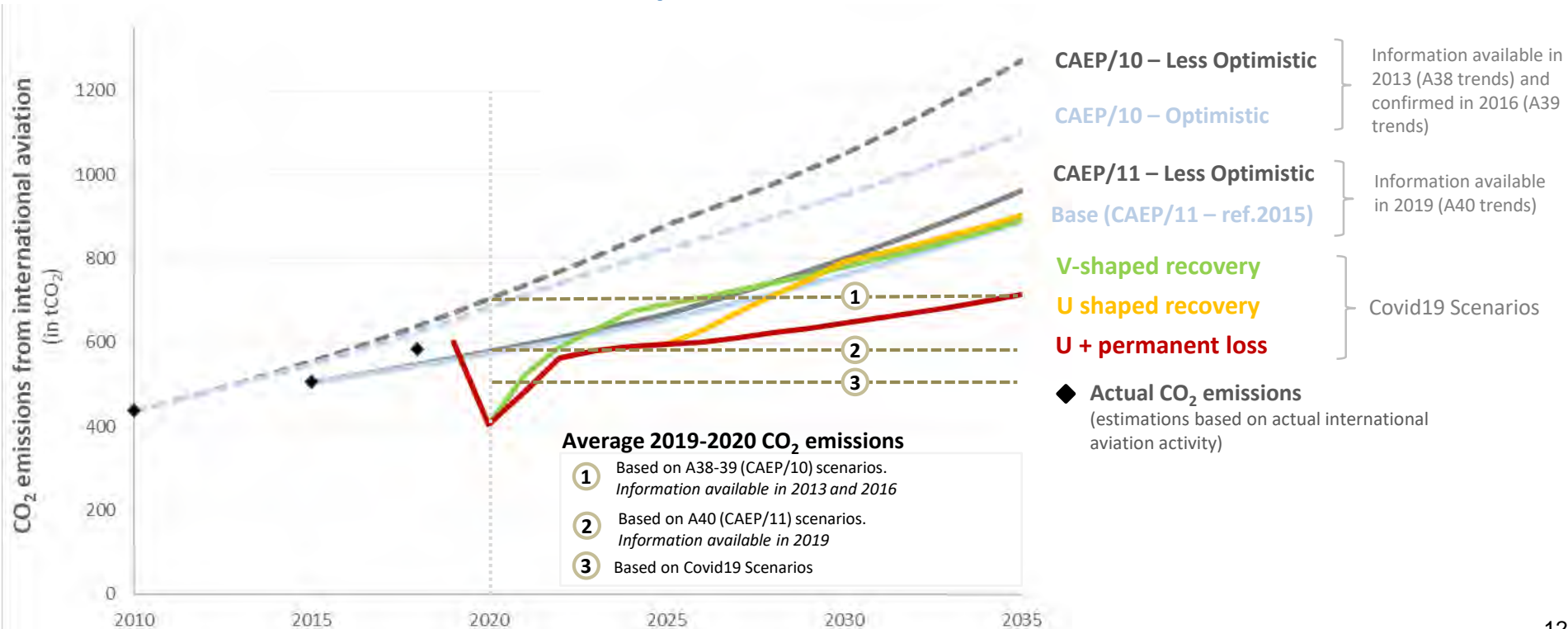
- CO<sub>2</sub> emissions in 2019 are slightly higher than CAEP/11 trends due to above average growth of the aviation sector in recent years (2015-2019).
- CO<sub>2</sub> emissions in 2020 could be about 40% lower than levels anticipated in 2016.





# Impact of 2020 CO<sub>2</sub> Emissions on CORSIA Baseline

- Considering Covid19 scenarios, the reference emissions for the CORSIA baseline could be about 18% lower compared to 2019 levels.

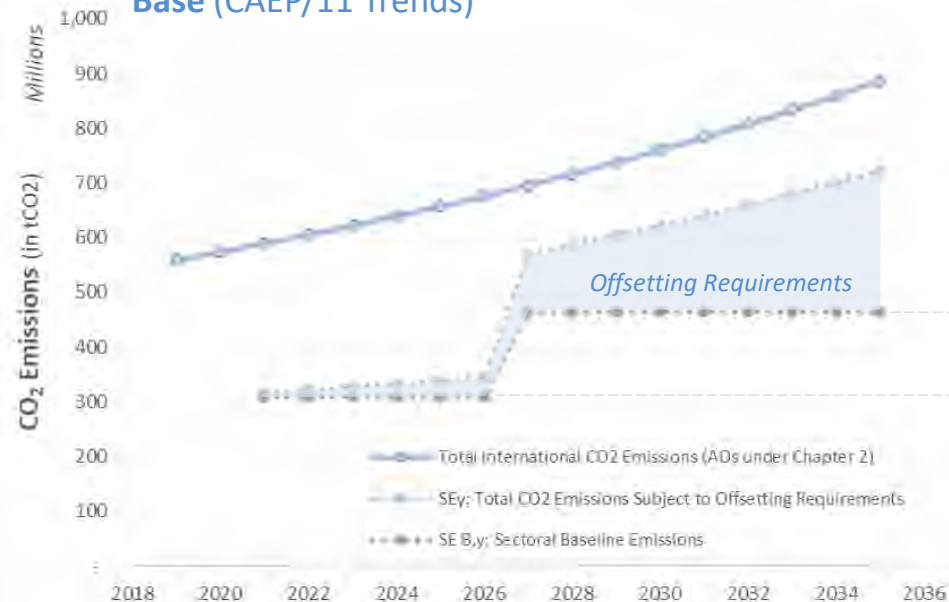


# CO<sub>2</sub> Emissions Trends and Basis for the Calculation of Offsetting Requirements

- Lower 2020 CO<sub>2</sub> emissions lowers the Sectoral Baseline Emissions (average 2019-2020).
- Despite a reduction in actual CO<sub>2</sub> emissions under a Covid19 (e.g., U-shaped recovery) scenario, low 2020 emissions results in higher offsetting requirements through 2035.

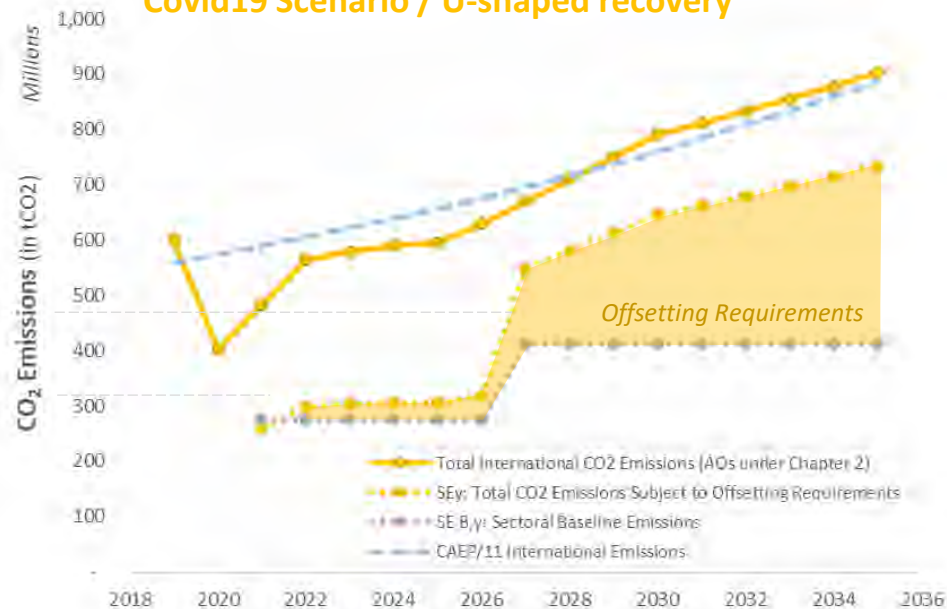
*Illustrative Scenario\*:*

Base (CAEP/11 Trends)



*Illustrative Scenario\*:*

Covid19 Scenario / U-shaped recovery

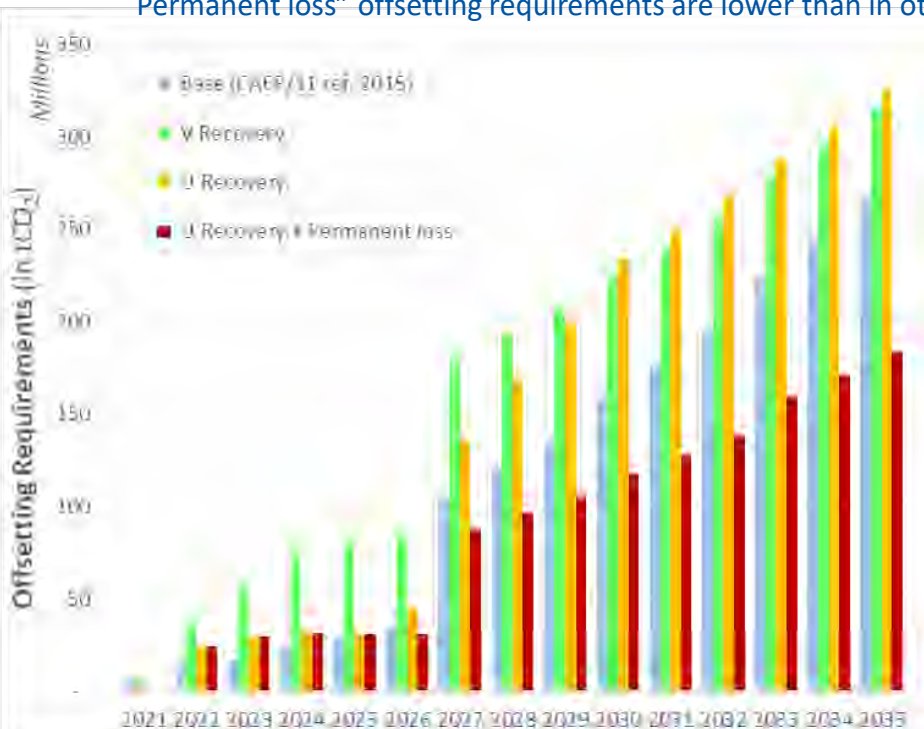


\* See appendix for illustration and details on other scenarios. Analyses supporting Question #1 assume the choice of Operator's Emissions in year y (OE<sub>y</sub>) for calculating Offsetting Requirements during the Pilot Phase. See Question #3 for comparative analysis of the effects of OE<sub>y</sub> vs. OE<sub>2020</sub>

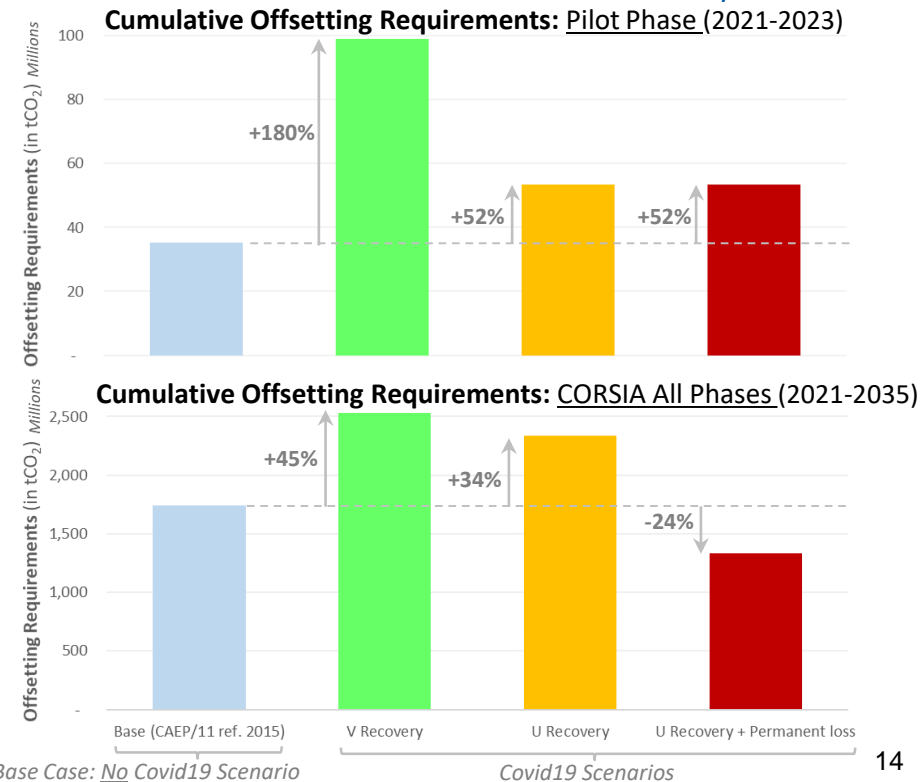


# Offsetting Requirements through 2035

- **Significant increase in total offsetting requirements in the case of V- and U-shaped recovery (compared to Base).**
- **Impacts of Covid19 on potential offsetting requirements are different in near/mid term vs. long term. Long-term impacts are dependent on the shape of recovery and trends through 2035.** For example, in the case of “U Recovery + Permanent loss” offsetting requirements are lower than in other scenarios as a result of a  $\approx 20\%$  decline in aviation activity.



Note. – Results are presented for all operators combined (i.e., global aggregate level), this does not imply that impacts will be the same across operators, regions, etc.



## Question #2:

How would potential amendments to reference years for baseline emissions (average 2019-2020, 2019, etc.) affect demand for emissions units during the Pilot Phase and through 2035.

### Answers:

- **Changing the baseline to 2019 could result in changes in total offsetting requirements;**
  - **Pilot Phase (2021-2023): from 40 MtCO<sub>2</sub> under no Covid19 scenario to zero or close to zero until 2023 in Covid19 Scenarios, and**
  - **All Phases (2021-2035): from 1.7 GtCO<sub>2</sub> under no Covid19 scenario to a range of -9% (≈ 1.6 GtCO<sub>2</sub> until 2035) in a V-shaped recovery scenario to -32% (≈ 0.6 GtCO<sub>2</sub> until 2035) in a U-shaped recovery with permanent loss scenario.**
- **Because of the contribution from CORSIA, net CO<sub>2</sub> emissions (i.e., gross CO<sub>2</sub> emissions minus offsetting requirements) would stabilize through 2035 in both cases of CORSIA baselines (Avg. 2019-2020 or 2019 only) at levels close to the aspirational targets anticipated at Assemblies 39 and 40.**

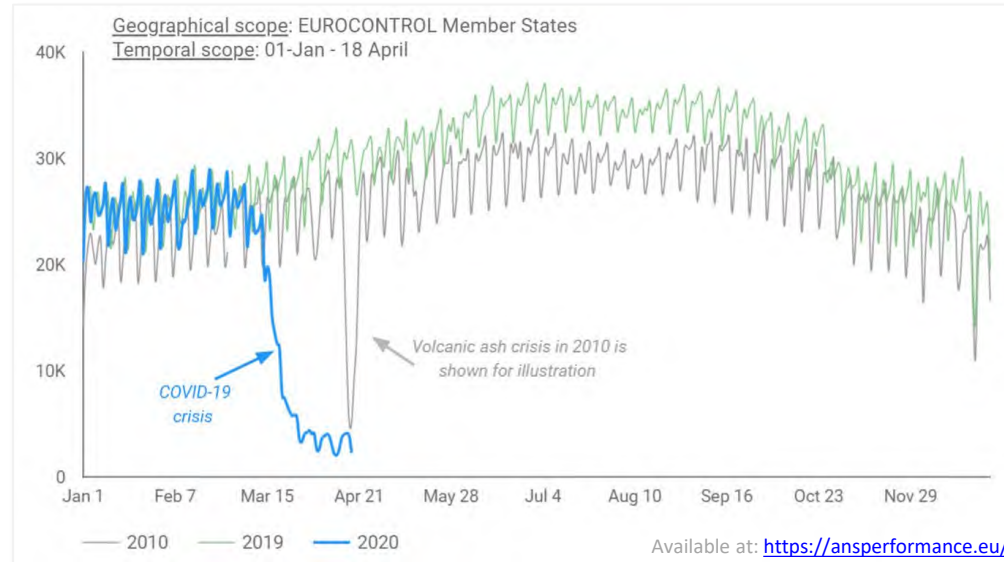




# Context on Covid19 Impacts on Aviation Sector

- The two-year baseline (i.e., 2019-2020) was deemed an appropriate measure to average and balance possible impacts of specific events, such as a major world sports event (e.g., Olympic games) or other (e.g., Volcano, SARS).
- Disruptions and impacts of Covid19 on the aviation sector it unprecedented and beyond what was anticipated when the two-year average baseline was developed.
- Impacts of Covid19 are also global and appear to last longer than previous events.

Illustration: Impact of Covid19 on European traffic (i.e., daily flights) in context of 2010 volcanic ash crisis





# Options for Investigation of Alternative Baselines

- For the purpose of analyses and the investigation of potential amendments to reference years for baseline emissions, alternative definitions of baselines were scoped and assessed.

## Definition of baseline from a CORSIA implementation standpoint...

Baseline Definitions	Description	Observations
<b>Average 2019-2020</b>	Currently defined in A39-3 and Annex 16 Volume IV	Challenges associated with actual/anticipated 2020 level of emissions.
<b>2019 (only)</b>	Single year 2019 (based on Monitored, Verified and Reported data under CORSIA)	Data expected to be available.
<b>Average 2019 and (projected) 2020</b>	Average of (actual) 2019 from CORSIA MRV and a projection of 2020 emissions	- As reference emissions will determine the obligations of individual operators, they must be based on operator-specific verified emissions data. Data suitable for regulatory requirements such as CORSIA's offsetting requirements is not available for projected 2020 (or 2018 or earlier) data.
<b>Average 2019 and some future year</b>	Average of 2019 and 202x (e.g., 2019 and 2021)	- Technically feasible. - Emissions in 2021 may still be impacted by Covid19. - Information on emissions in 2021 will not be available until 2022 (which may create issues with timeline of calculation of offsetting requirements).

## ... and scenario(s) analyzed

### Scenario(s) Analyzed

**Base case** (results on page 14)

**Covid19 scenarios** (results on page 14)

**Quantitative scenario based analyses of alternative baselines conducted** (see next slides for results)

**No additional analyses conducted.**  
Results expected to be similar to "Base case" with Avg. 2019-2020 baseline (results on page 15)

No quantitative analyses conducted given initial implementation challenge identified.





# Effect of Changing the Baseline to 2019: Illustration

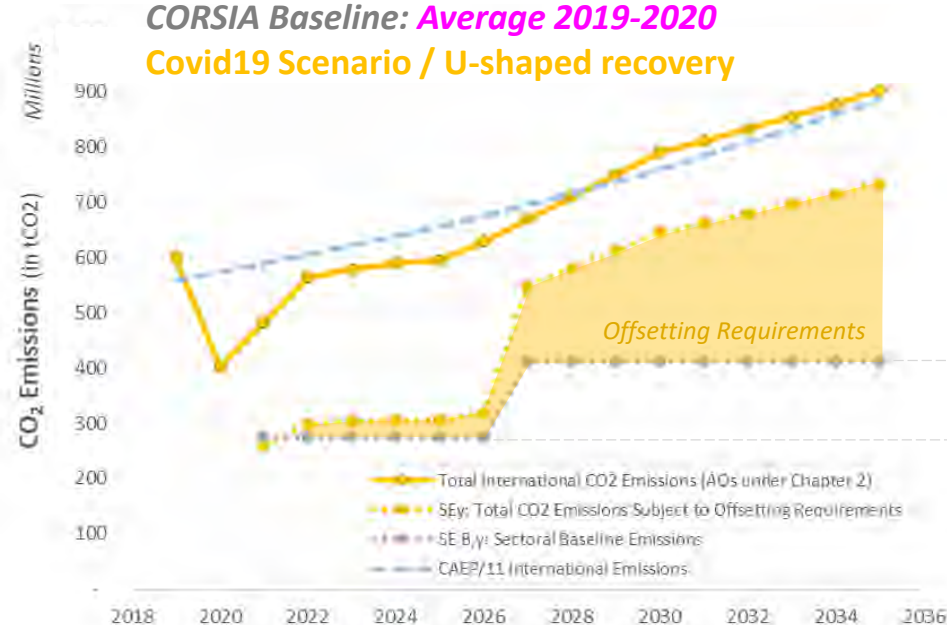
Shifting from an average of 2019-2020 baseline to a 2019 baseline...

... increases the Sectoral Baseline Emissions (to 2019 level) and therefore reduces offsetting requirements on a relative basis.

*Illustrative Scenario\*:*

**CORSIA Baseline: Average 2019-2020**

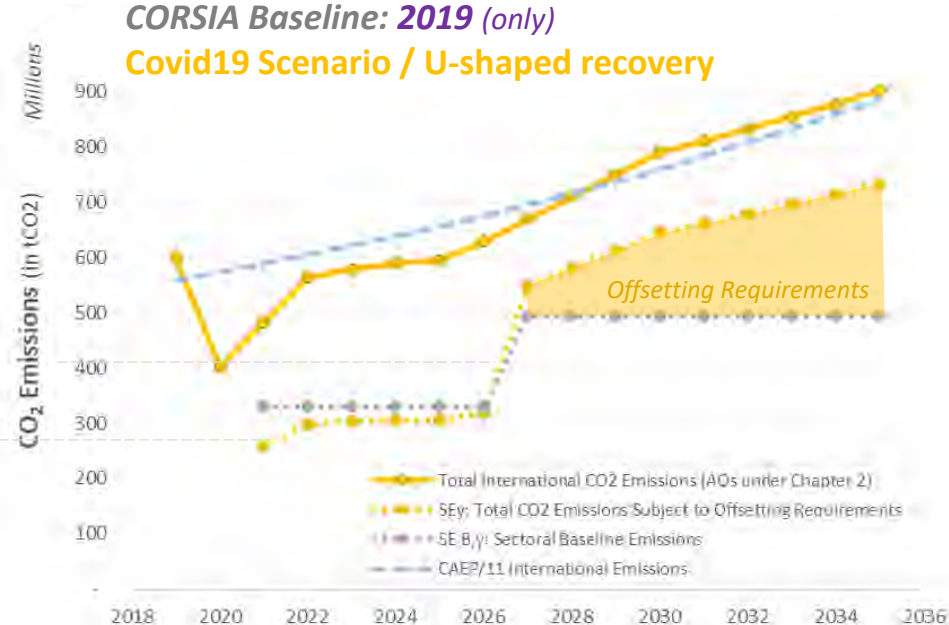
**Covid19 Scenario / U-shaped recovery**



*Illustrative Scenario\*:*

**CORSIA Baseline: 2019 (only)**

**Covid19 Scenario / U-shaped recovery**

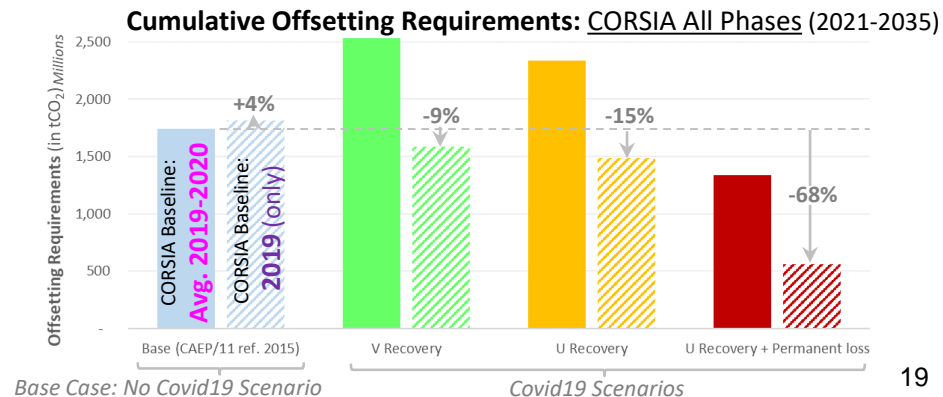
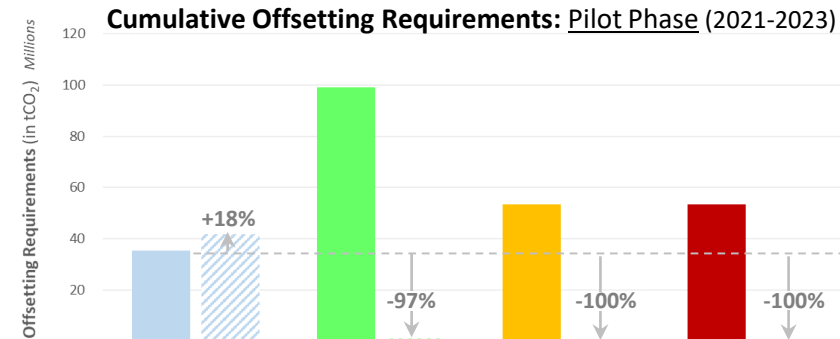
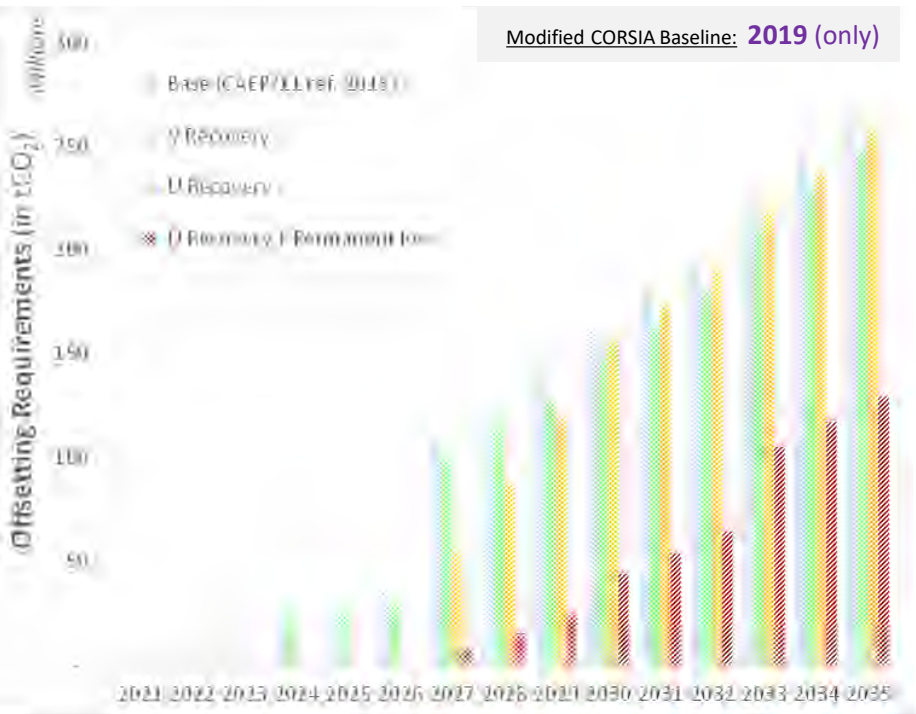


\* See appendix for illustration and details on other scenarios



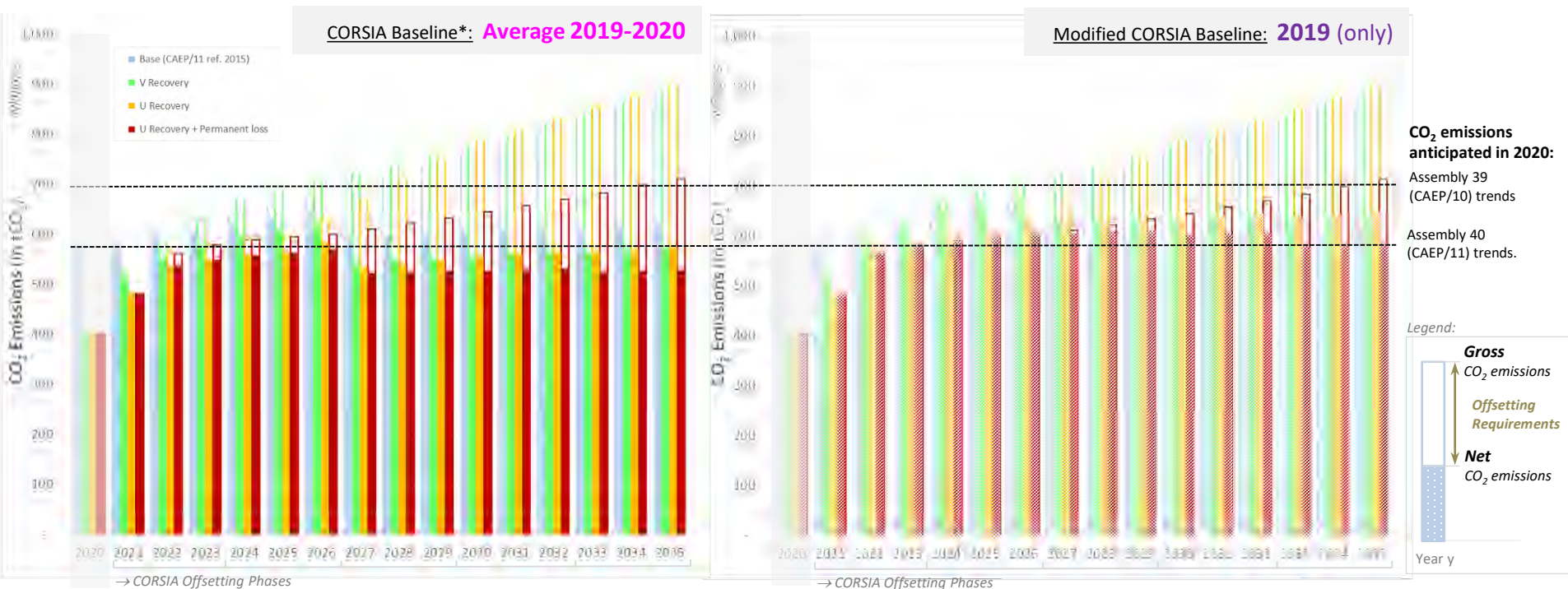
# Effect of Changing the Baseline to 2019

- Under a Base Case (no-Covid19) scenario, changing the baseline from the *average 2019-2020* to *2019* would have resulted in an increase in offsetting requirements.
- Changing the baseline to 2019 would lower cumulative offsetting requirement from 2021 to 2035 to levels close to pre-Covid19 levels for the V- and U- recovery scenarios.



# Potential Evolution of Net CO<sub>2</sub> Emissions

- Because of the contribution from CORSIA, net CO<sub>2</sub> emissions (i.e., gross CO<sub>2</sub> emissions minus offsetting requirements) **would stabilize through 2035 in both cases of CORSIA baselines** (i.e., Avg. 2019-2020 or 2019 only) **at levels close to the aspirational targets anticipated at Assemblies 39 and 40.**



\* As defined in Annex 16 Volume IV



## Discussion on Questions 1 and 2



## Question #3:

**How would the choice\* of reference (year) for Operator's Emissions (OE) for calculating offsetting requirements affect demand for emissions units during the Pilot Phase.**

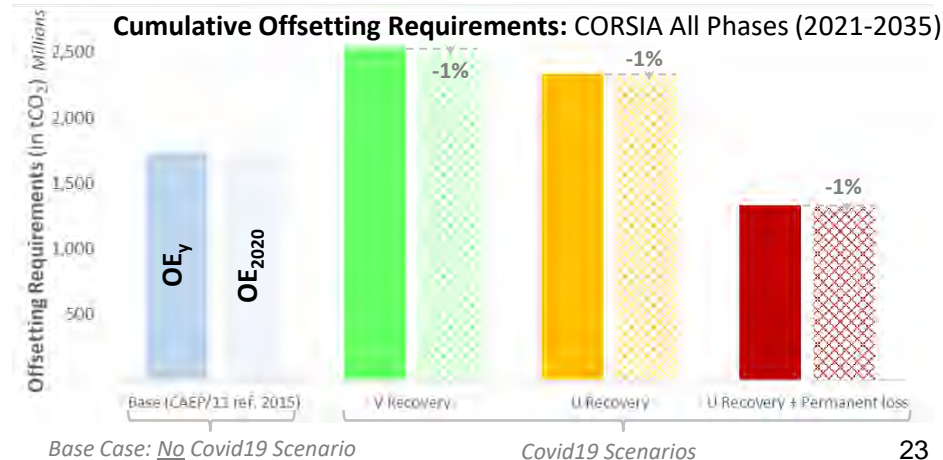
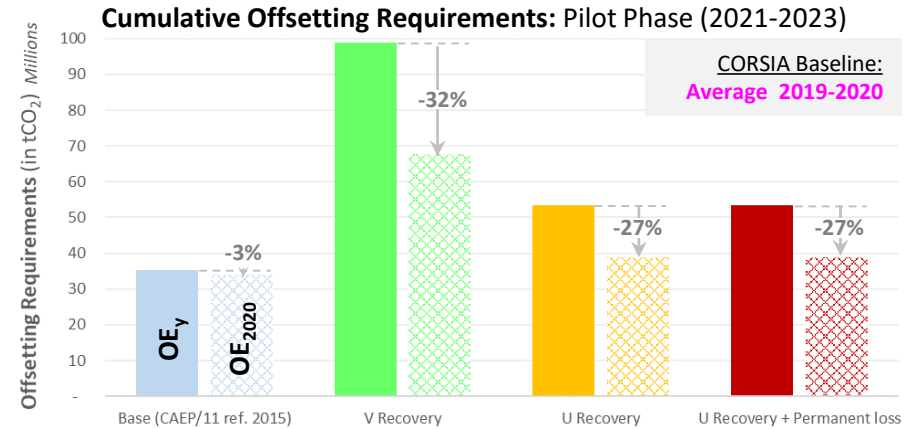
### Answers:

- Under a CORSIA Baseline: Avg. 2019-2020, the effect (aggregated for all operators combined) of the choice of reference (year) for Operator's Emissions for calculating offsetting requirements is;
  - Pilot Phase (2021-2023): reducing offsetting requirements by about 30% (by definition the choice only affects the pilot phase) and
  - All Phases (2021-2035): reducing by about 1% the total cumulative offsetting requirements.
- Magnitude of the offsetting requirements would depend on how individual operators are impacted by Covid19.
- Under a "CORSIA Baseline: 2019 (only)" scenario, given that SGF would be 0 or close to 0 (2021-2023), there could be zero to little offsetting requirements in the Pilot Phase. Choosing 2020 as reference (year) for Operator's Emissions would therefore produce no or very little effects on offsetting requirements.

*\* Note. – As defined in Annex 16 Volume IV, 3.2.1, this choice only impacts offsetting requirements during the Pilot Phase (2021-2023).*

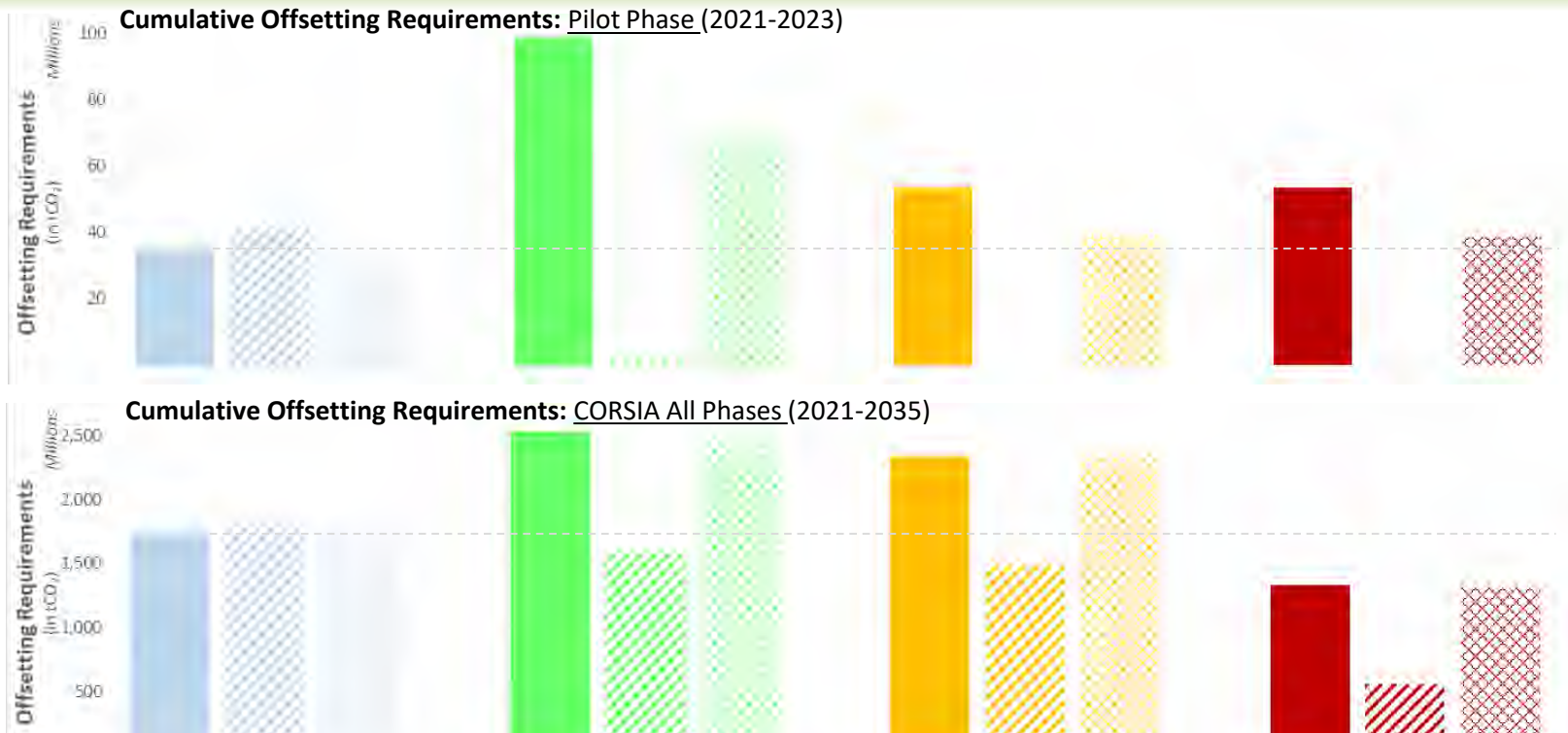
# Effect of Choice of Reference (Year) for Operator's Emissions for Pilot Phase

- Choosing to use Operators' Emissions in 2020 (as opposed to Operator's Emissions in given year  $y$ ) would reduce offsetting requirements during the Pilot Phase by  $\approx 30\%$ .
- The impact (i.e., choice of  $OE_{2020}$  vs.  $OE_y$ ) on the overall offsetting requirements from 2021-2035 is marginal.
- The reduction would only provide a significant alleviation for operators whose activities declined in 2020.
- Offsetting requirements for operators whose activities were not as heavily impacted in 2020 (for example, cargo operators) or operators who are able to recover quickly would benefit less (if at all) from using Operators' Emissions in 2020.



Note. – Results are presented for all operators combined (i.e., global aggregate level), this does not imply that impacts will be the same across operators, regions, etc.

# Summary of Results (Questions 1, 2 and 3) on Offsetting Requirements during the Pilot Phase and All Phases of CORSIA



Scenario Assumptions

CO<sub>2</sub> Emissions Trends

Base (CAEP/11 ref. 2015)

No Covid19 Scenario

V-Recovery

Covid19 Scenario

U-Recovery

Covid19 Scenario

U Recovery+ Permanent Loss

Covid19 Scenario

CORSIA Baseline

Avg 2019  
-2020

2019  
(only)

Avg 2019  
-2020

Avg 2019  
-2020

2019  
(only)

Avg 2019  
-2020

Avg 2019  
-2020

2019  
(only)

Avg 2019  
-2020

Avg 2019  
-2020

2019  
(only)

Avg 2019  
-2020

Reference Year for Operator's  
Emissions (OE) in Pilot Phase

OE<sub>y</sub>

OE<sub>y</sub>

OE<sub>2020</sub>

OE<sub>y</sub>

OE<sub>y</sub>

OE<sub>2020</sub>

OE<sub>y</sub>

OE<sub>y</sub>

OE<sub>2020</sub>

OE<sub>y</sub>

OE<sub>y</sub>

OE<sub>2020</sub>



## Discussion on Questions 3



## **Question #4:**

**How could the decline in 2020 emissions affect the exemptions from offsetting requirements for potential future New Entrants\*.**

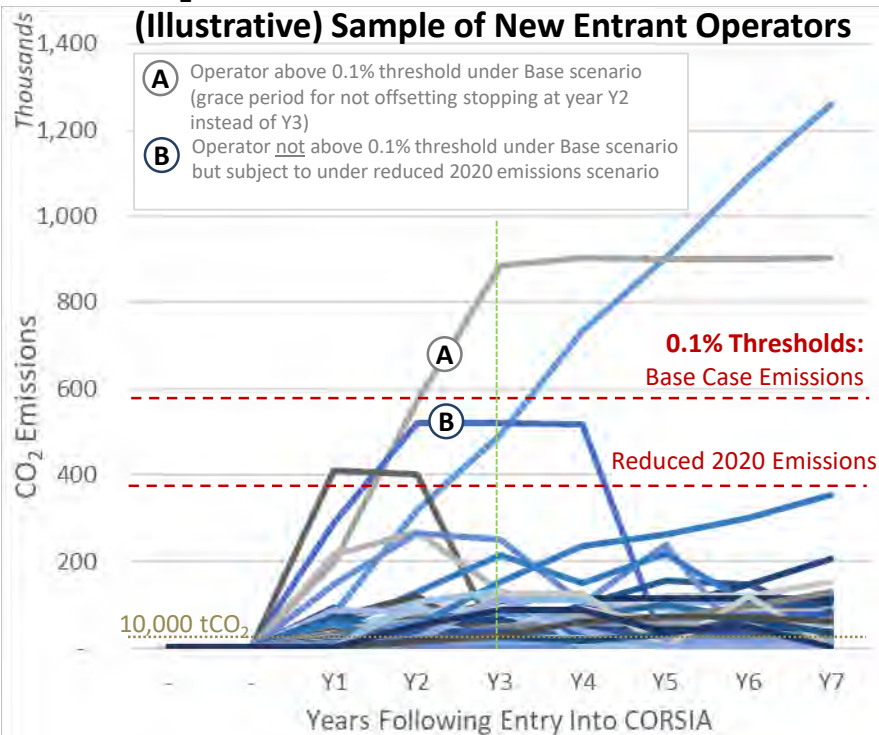
### **Answers:**

- **Impacts on new entrant operators appear marginal,**
- **A reduction of the 0.1% threshold could require a few more New Entrants to offset 1 year sooner than otherwise expected,**
- **Further analysis (in conjunction with ongoing work on defining baseline for new entrants) could be conducted.**

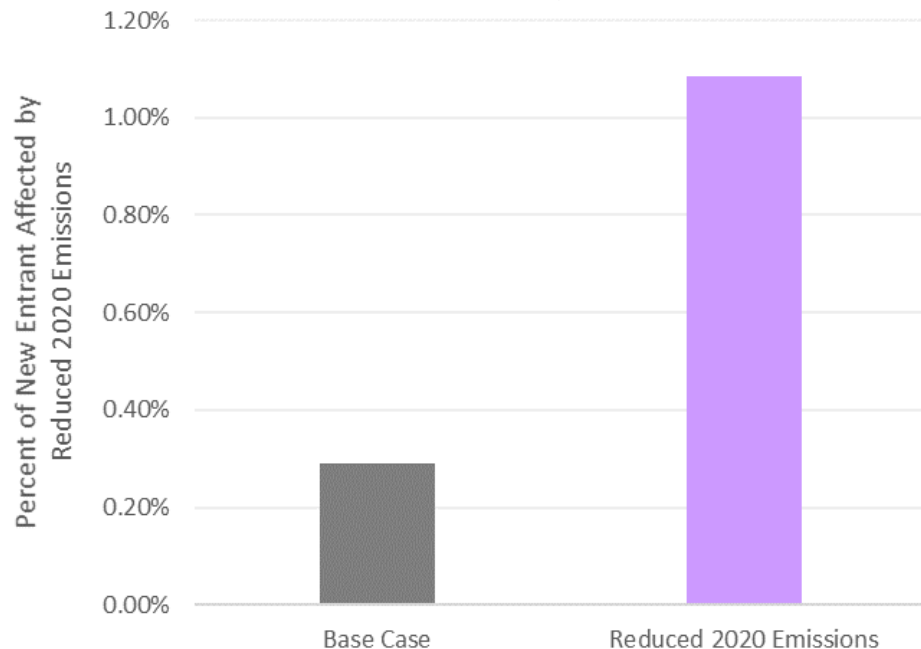
# Potential Effect on New Entrants

- Reduction in 2020 emissions could affect the threshold (0.1% of 2020 emissions) for New Entrants' exemptions from offsetting requirements.
- A reduction of the 0.1% threshold could require a few more New Entrants to offset 1 year sooner than otherwise expected.

CO<sub>2</sub> Emissions from International Aviation for (Illustrative) Sample of New Entrant Operators



Percent of New Entrant Operators subject to 0.1% Threshold i.e., offsetting before Year 4



## Next Steps on New Entrant Analyses

- Initial analyses on the potential impacts of Covid19 on future New Entrants focused on a sample scenario for new entrants.
- Additional scenarios could be investigated as part of other WG4-CTAG work on new entrant analyses continues.
- Dependency on the definition of baselines for new entrants (i.e., link with other C.08 task on options for New Entrant baselines) could be investigated.
- As a result of Covid19, the aviation sector may experience in the near-/mid-term; (1) a phase of bankruptcies (exits from CORSIA of operators who had a baseline in 2019) and (2) a phase of emergence of new entrants.
- Analyses on new entrants (and exits) by WG4-CTAG could be extended to further understand the impacts on offsetting requirements and net CO<sub>2</sub> emissions.



## Discussion on Questions 4

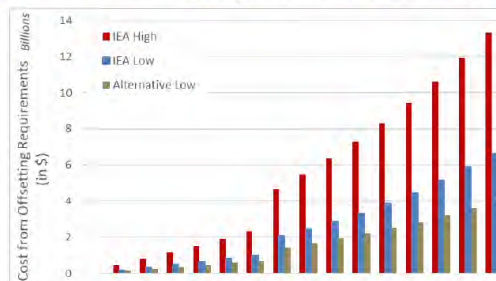
# Considerations Related to Costs from Offsetting Requirements

- The WG4-CTAG was not requested by CAEP to quantitatively assess the cost impacts of Covid19 on CORSIA.
- CAEP had developed ranges of costs for CAEP/10-11 CORSIA Analyses.
- Uncertainties exist on potential cost of emissions units due to Covid19.
- Detailed cost estimations could be speculative at this point in time.

CAEP/11-IP/30: "Updates on the Estimation of the Costs and CO<sub>2</sub> Reductions Expected to Result from CORSIA (Based on A39-3)"

## Cost from Offsetting Requirements Resulting from Range of Scenarios

- Estimated cost from offsetting requirements based on CO<sub>2</sub> emissions to offset under CORSIA.
- Factoring high, low and alternative low forecasts of unit cost of carbon, the total cost from offsetting requirements between 2021 and 2035 were computed.



IEA WEO 2013 carbon price paths reflect allowance prices only.

The alternative low carbon price path takes into account a larger pool of emissions units with lower abatement costs.

### Carbon Price Assumptions:

IEA High	20 \$/ton	33 \$/ton	40 \$/ton
IEA Low	8 \$/ton	15 \$/ton	20 \$/ton
Alternative Low*	6 \$/ton	10 \$/ton	12 \$/ton

\* Alternative low carbon price case

# Summary (1/2)

## Question #1:

Given scenarios of CO<sub>2</sub> emissions trends (with and without Covid19 impacts), what would be the demand for emissions units during the Pilot Phase and through 2035.

## Question #2:

How would potential amendments to reference years for baseline emissions (average 2019-2020, 2019, etc.) affect demand for emissions units during the Pilot Phase and through 2035.

- Covid19 is having an unprecedented impact on aviation. CO<sub>2</sub> emissions could decline by  $\approx -33\%$  from 2019 to 2020 ( $\approx 400 \text{ MtCO}_2$  in 2020).
  - This would result in a CORSIA baseline (defined as the average of 2019 and 2020 emissions) lower by  $\approx 18\%$  (vs. CAEP/11).
  - That lower baseline could result in a substantial impact on total offsetting requirements;
    - Pilot Phase (2021-2023): from  $+180\%$  ( $\approx 100 \text{ MtCO}_2$  until 2023) in a V-shaped recovery scenario to  $+50\%$  ( $\approx 55 \text{ MtCO}_2$  until 2023) in a U-shaped recovery with permanent loss scenario.
    - All Phases (2021-2035): from  $+45\%$  ( $\approx 2.5 \text{ GtCO}_2$  until 2035) in a V-shaped recovery scenario to  $-24\%$  ( $\approx 1.3 \text{ GtCO}_2$  until 2035) in a U-shaped recovery with permanent loss scenario.
- 
- Changing the baseline to 2019 could result in changes in total offsetting requirements;
    - Pilot Phase (2021-2023): from  $40 \text{ MtCO}_2$  under no Covid19 scenario to zero or close to zero until 2023 in Covid19 Scenarios, and
    - All Phases (2021-2035): from  $1.7 \text{ GtCO}_2$  under no Covid19 scenario to a range of  $-9\%$  ( $\approx 1.6 \text{ GtCO}_2$  until 2035) in a V-shaped recovery scenario to  $-32\%$  ( $\approx 0.6 \text{ GtCO}_2$  until 2035) in a U-shaped recovery with permanent loss scenario.
  - Because of the contribution from CORSIA, net CO<sub>2</sub> emissions (i.e., gross CO<sub>2</sub> emissions minus offsetting requirements) would stabilize through 2035 in both cases of CORSIA baselines (Avg. 2019-2020 or 2019 only) at levels close to the aspirational targets anticipated at Assemblies 39 and 40.



## Summary (2/2)

### Question #3:

How would the choice of reference (year) for Operator's Emissions (OE) for calculating offsetting requirements affect demand for emissions units during the Pilot Phase.

- The effect (aggregated for all operators combined) of the choice of reference (year) for Operator's Emissions for calculating offsetting requirements is;
  - Pilot Phase (2021-2023): reducing offsetting requirements by about 30% (by definition the choice only affects the pilot phase) and
  - All Phases (2021-2035): reducing by about 1% the total cumulative offsetting requirements.
- Magnitude of the offsetting requirements would depend on how individual operators are impacted by Covid19.
- Under a "CORSIA Baseline: 2019 (only)" scenario, given that SGF would be 0 or close to 0 (2021-2023), there could be zero to little offsetting requirements in the Pilot Phase. Choosing 2020 as reference (year) for Operator's Emissions would therefore produce no or very little effects on offsetting requirements.

### Question #4:

How could the decline in 2020 emissions affect the exemptions from offsetting requirements for potential future New Entrants.

- Impacts on new entrant operators appear marginal,
- A reduction of the 0.1% threshold could require a few more New Entrants to offset 1 year sooner than otherwise expected,
- Further analysis (in conjunction with ongoing work on defining baseline for new entrants) could be conducted.

- **The WG4-CTAG plans to continue to coordinate with the CAEP-FESG and MDG groups to monitor the development and refinements of Covid19 scenarios.**
- **WG4-CTAG CORSIA Analyses plans to update and refine the scenario-based analyses on the impacts of Covid19 on CORSIA and will stand ready to address follow on questions from Council (as needed).**





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(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Sub-office  
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Asia and Pacific  
(APAC) Office  
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THANK YOU

s22

**From:** s47F qantas.com.au >  
**Sent:** Wednesday, 10 June 2020 8:43 AM  
**To:** s22  
**Subject:** FW: COVID-19 and CORSIA: webinars  
**Attachments:** COVID & CORSIA Webinar 8-9 June 2020 (updated).pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi s22

Hope this finds you both well. Please see attached an IATA deck outlining the need to decide the baseline at this Council meeting, rather than deferring to the October meeting. I understand from last time we spoke that this was also your preference but that if majority of states wanted to delay the decision that would be understandable. If there is any possibility to ensure the decision is made at this meeting that would be most appreciated from our perspective – particularly to ensure certainty/enable planning and access to lowest cost credits.

This deck doesn't talk about it but we're also quite worried about the reporting deadline for the baseline given it's very unlikely that we'd be to make the (extended) 31<sup>st</sup> July deadline. Any extension you can get from ICAO on the States reporting deadline would also be much appreciated.

Hope the discussions are productive! Look forward to hearing the outcomes.

s47  
F

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**From:** IATA – CORSIA <corsia@iata.org>  
**Sent:** Tuesday, 9 June 2020 5:49 PM  
**To:** IATA – CORSIA <corsia@iata.org>  
**Cc:** s47F  
**Subject:** COVID-19 and CORSIA: webinars

Dear colleagues,

As requested by many and in advance of the second session which will be held today, please find an updated presentation. It includes a few additional slides, including one on the impacts on cargo operators.

You should also have received yesterday an updated calendar invitation with a new link to join today's webinar. The link in the initial invitation will not work. The new link is provided below for your convenience.

---

### [Join Microsoft Teams Meeting](#)

+1 213-204-2032 United States, Los Angeles (Toll)

Conference ID: 467 703 397#

[Local numbers](#) | [Reset PIN](#) | [Learn more about Teams](#) | [Meeting options](#)

Join with a video conferencing device

[817098543@t.plcm.vc](mailto:817098543@t.plcm.vc) VTC Conference ID: 1220879648

[Alternate VTC dialing instructions](#)

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We naturally remain at your disposal for any questions you may have.

Kind regards,

s47F

s47F

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**From:** IATA – CORSIA  
**Sent:** 08 June 2020 09:39  
**To:** IATA – CORSIA <[corsia@iata.org](mailto:corsia@iata.org)>  
**Cc:** s47F  
**Subject:** COVID-19 and CORSIA: webinars

Dear colleagues,

In advance of today's and tomorrow's webinar, please find attached the slides that will be presented. The slides complement the analysis which was circulated earlier ([link to pdf](#)).

I also wanted to take this opportunity to let you know that the International Emissions Trading Association is organizing a series of webinars on carbon markets. The second webinar will take place on Wednesday and will cover carbon market developments in Asia and in relation to CORSIA. More information is available at: <https://www.ieta.org/event-3848222>

Best regards,

s47F

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**From:** IATA – CORSIA <[corsia@iata.org](mailto:corsia@iata.org)>  
**Sent:** 27 May 2020 09:48  
**Subject:** COVID-19 and CORSIA: additional briefing materials and update on progress

Dear airline colleagues,

In response to requests, we have developed additional briefing materials on COVID-19 and CORSIA. Below you will find links to all position papers and briefing materials which are available as of today:

**Position papers**

- Position paper of 19 May 2020: [link to pdf](#)
- Position paper of 30 March 2020: [link to pdf](#)

**Briefing materials**

- Analysis of impacts (presentation): [link to pdf](#)
- Analysis of impacts (annotated charts): [link to pdf](#)
- Briefing paper on '2020 alternative option': [link to pdf](#)

While we have received feedback that many States support using 2019 emissions only for the baseline, we would like to draw your attention to the main **2 risks** that remain:

### A deferral of the decision to a later time

- Parties opposed to changing the baseline have been seeking to defer a decision until a future session of the Council. Some are even trying to claim that a decision cannot be made by the Council and needs to be deferred to the 2022 Assembly.
- If a decision is deferred to a later time, it is very likely that reaching an agreement on the baseline will be much more difficult: many States will be less inclined to support the industry when the industry will have overcome the worst of the crisis and there is a higher risk that other alternative proposals will be introduced, making consensus much harder to reach.
- For airlines it also means that it will be impossible to start planning offsetting requirements before the end of 2022 and that airlines would be subject to a binding scheme without knowing the level of stringency they will have to comply with.

### States may be lured into the trap of the alternative '2020' option for the pilot phase ([link to briefing paper](#))

- The '2020 option' for calculating offsetting requirements is available to states during the pilot phase (2021-2023) of CORSIA. By default, offsetting requirements in the pilot phase are calculated by multiplying the emissions of individual airlines in a given compliance year by the sector's growth factor (SGF) for the same given year. The '2020 option' allows states to calculate offsetting requirements during the pilot phase (only) by applying the SGF in a given year to the airlines' emissions in 2020, rather than their emissions in 2021, 2022 or 2023.
- Those opposed to a 2019 baseline have heralded the alternative 2020 option as a solution to mitigating the considerable increases in airline compliance costs resulting from the COVID-19 crisis. This is misleading as the provision will not have any impact on baseline emissions or the sector's growth factor in the pilot phase or any subsequent phases. Nor does its application address the fundamental issue that using 2020 emissions would require international aviation to stabilize net emissions at 2010 levels. Furthermore, using the option now can lead to severe competitive and market distortions and even amplify the financial impact of the COVID-19 crisis on some airlines.
- It is important to keep in mind that this option has been presented by opponents to a 2019 baseline as a solution that would avoid the need to change the baseline. So, if States decide to apply this option, this could undermine our chances of the baseline being based on 2019 emissions only.

We would please ask you to follow up with your authorities to make sure they understand the implications of deferring a decision and are aware of the problems that would arise from applying the alternative '2020' option.

We naturally remain at your disposal to provide additional information and support for your outreach to governments.

Thank you and kind regards,



**International Air Transport Association**  
IATA Center, 33 Route de l'Aéroport, PO Box 416,  
1215, Geneva, Switzerland  
[iata.org](http://iata.org)

### CONFIDENTIAL NOTICE

The content of this email is confidential and intended only for the individual to which it is addressed. If you are not the

# Impacts of COVID-19 crisis on CORSIA

Webinars, 8-9 June 2020

# ICAO Process and position of States

## Group 1

- Clear recognition that baseline cannot be based on 2020
- 2019 is a suitable alternative which would limit the impact on airlines and maintain the level of ambition foreseen in the original agreement
- Decision needs to be taken urgently

## Group 2

- Implicit recognition that 2020 emissions are not suitable for the baseline
- More options need to be considered (but no specific proposals put forward)
- More analysis should be undertaken and the decision needs to be deferred

# Risks

Some are seeking to defer a decision (to avoid a change to the baseline)

- If no decision is taken, airlines will not have clarity on the baseline by 1 Jan 2021 and it will become much more difficult to reach an agreement
- Some are arguing that the decision must be taken by the Assembly. This would mean that it will no longer be possible to change the baseline for the pilot phase (principle of legal certainty)
- Arguments that more options need to be considered and more analysis conducted are likely to favor the status quo by making it more difficult to reach an agreement in ICAO
- If a decision is not made in June, it will be too late for States to opt out if the baseline is not changed
- **In the absence of agreement, the status quo (=2019/2020 baseline) will apply!**

# There is no time to wait

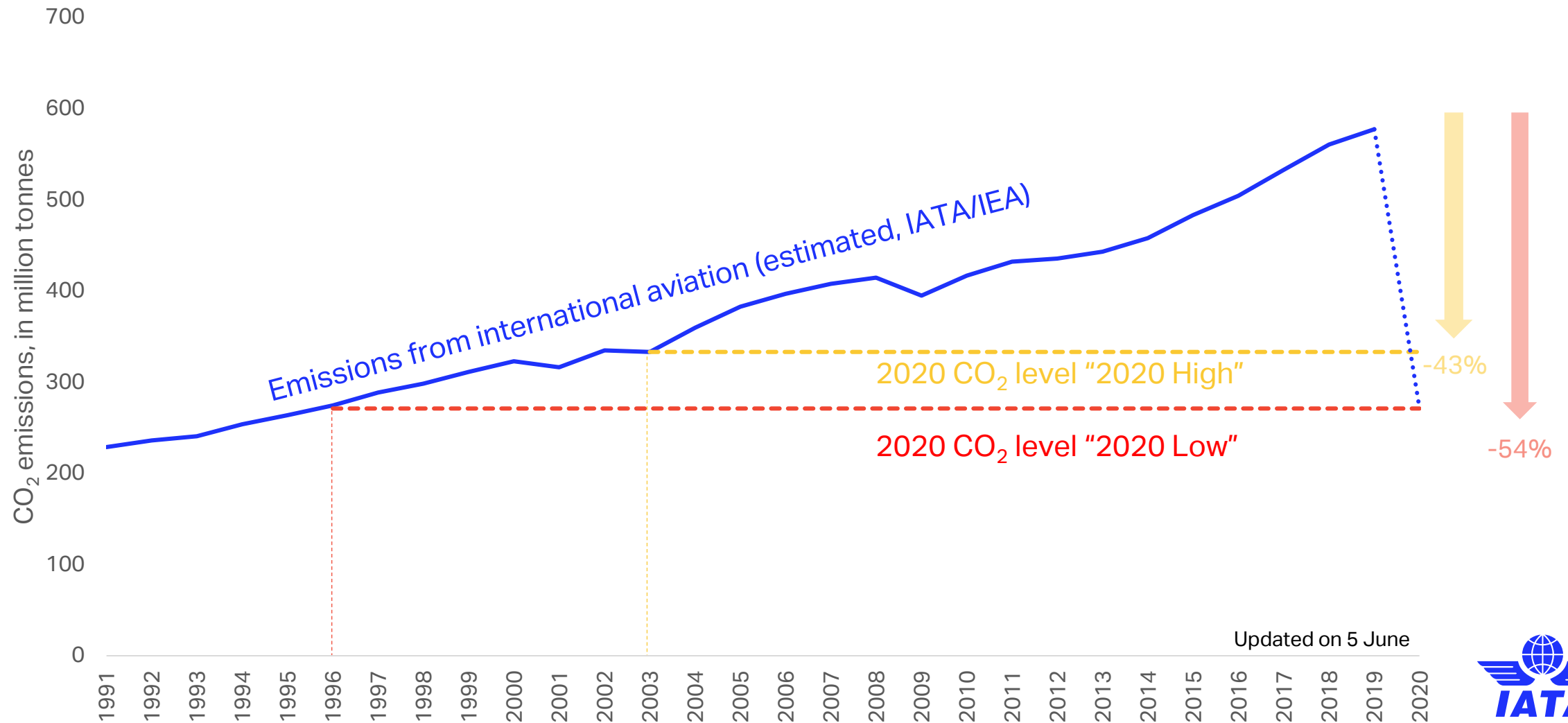


In many countries, it would not be legally possible to amend the baseline retroactively (i.e. after 1 January 2021)

Airlines must be able to estimate their offsetting requirements and plan the procurement of eligible emissions units prior to the start of the pilot phase on 1 January 2021

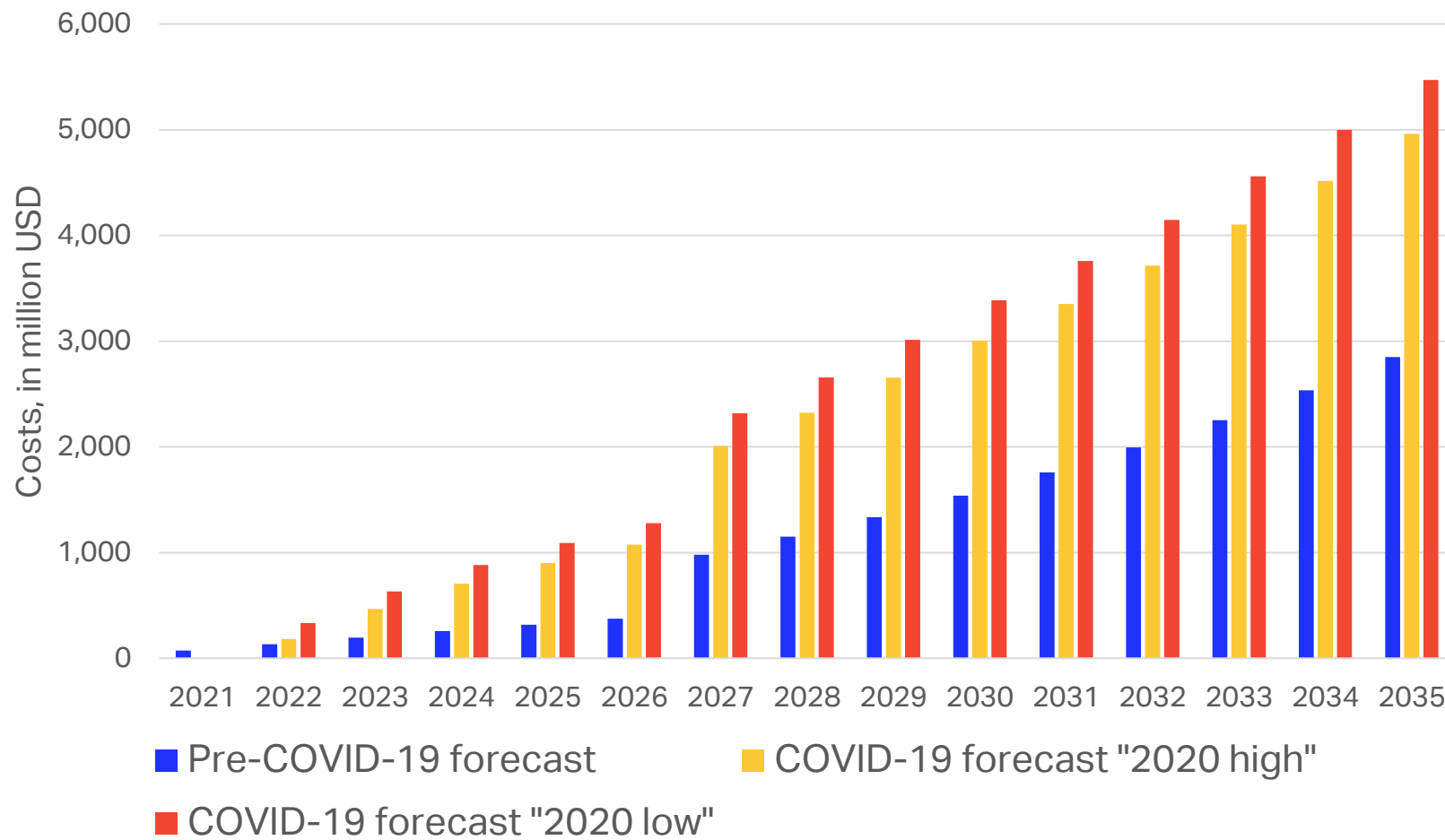


# In 2020 emissions will fall to pre-2005 levels



# Higher offsetting costs

Annual offsetting costs (all operators)

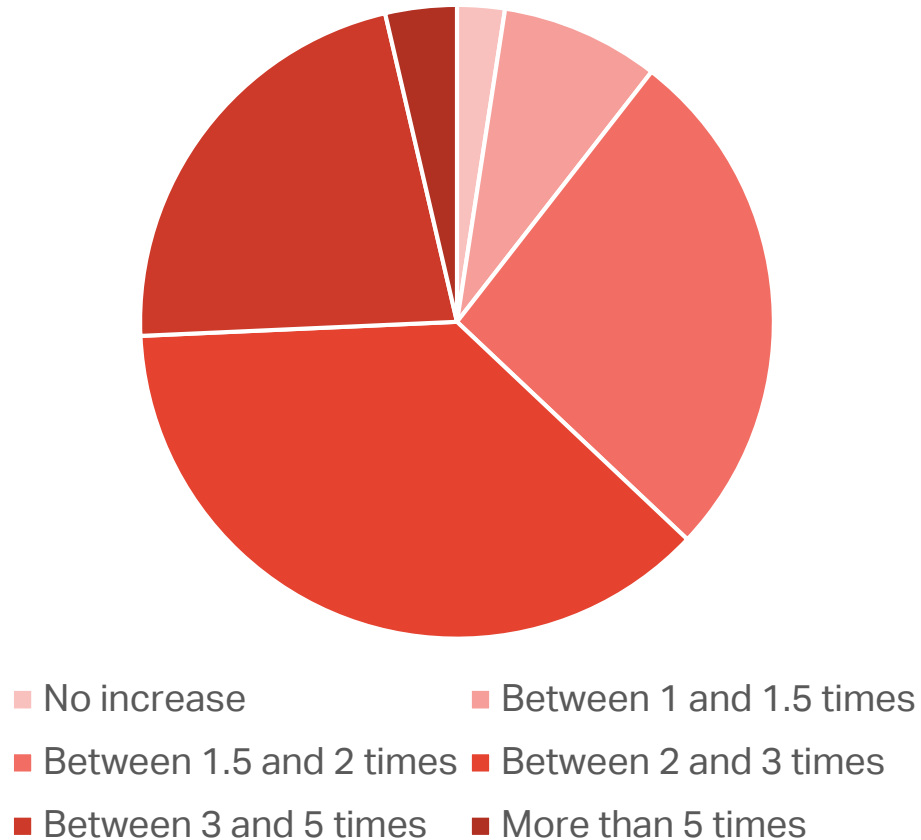


Calculating offsetting requirements against average 2019/2020 emissions would significantly increase the cost of CORSIA on airlines.

The overall additional cost would range between 16.2 and 20.8 billion USD

# The impact will affect all airlines

Increase in offsetting costs



98% of passenger airlines with flights subject to offsetting requirements will bear a higher burden if the baseline is not changed. For the majority, costs will at least double.

A few airlines will not incur any increase, but that is only because their activities will not recover enough.

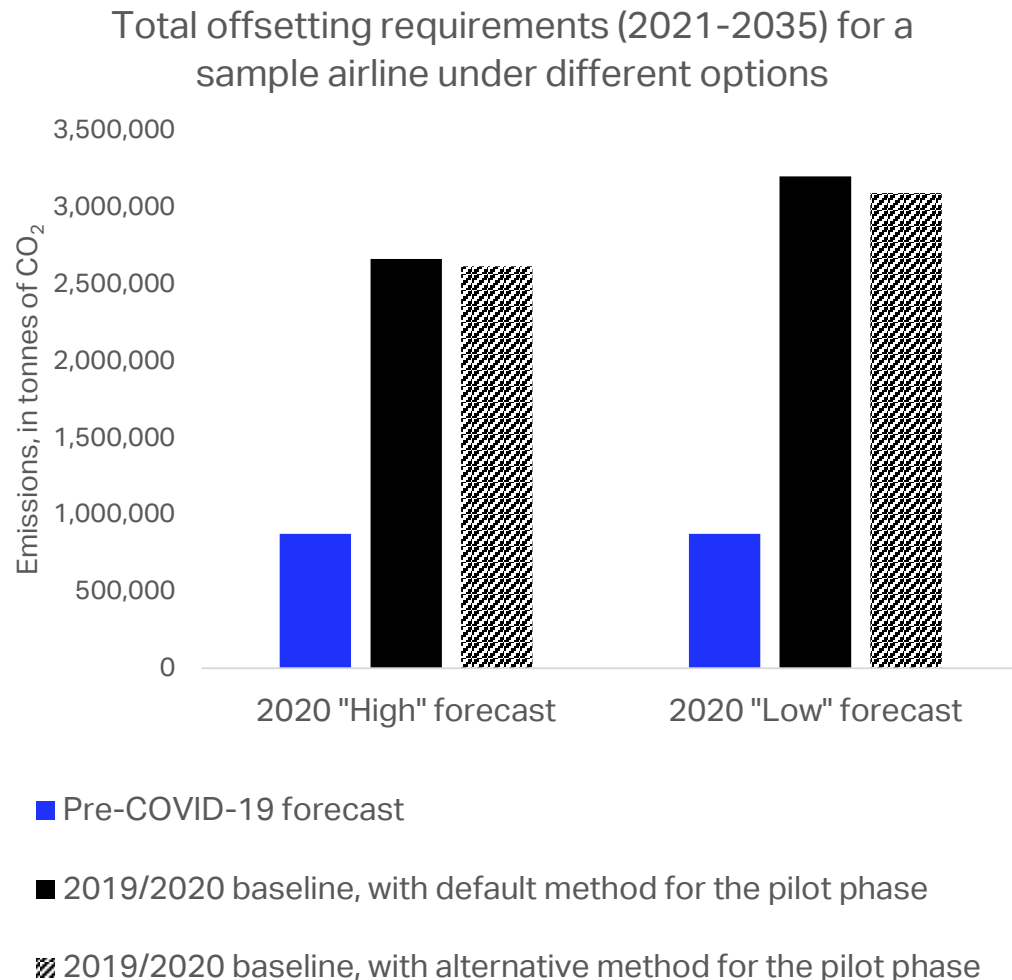
## Alternative method for pilot phase

Those opposed to the use of 2019 emissions alone to establish the CORSIA baseline have heralded the alternative 2020 option to calculate offsetting requirements as a solution to mitigating the considerable increases in airline compliance costs resulting from the COVID-19 crisis.

## How it works:

	2020	2021	2022	2023
Total CO <sub>2</sub>	500	750	1000	1100
SGF		1%	14%	23%
Default method		7.5 (1% of 750)	140 (14% of 1000)	253
Alt. method		5 (1% of 500)	70 (14% of 500)	115

# Impact on offsetting requirements

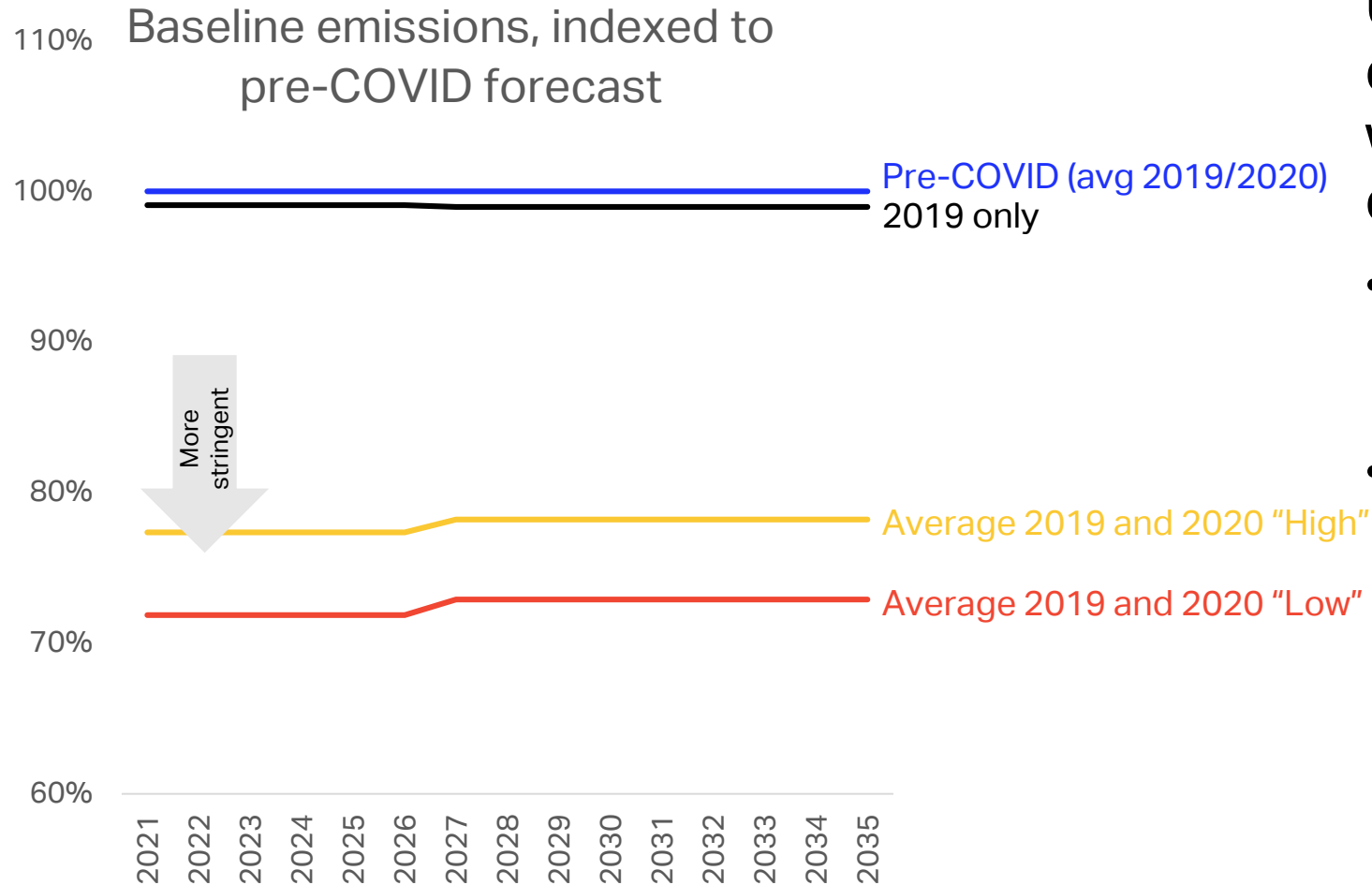


The option will not have any impact on baseline emissions or the sector's growth factor in the pilot phase or any subsequent phases

It does not address the fundamental issue that using 2020 emissions would require international aviation to stabilize net emissions at about 2010 levels

It can lead to severe competitive and market distortions as not all States will apply it

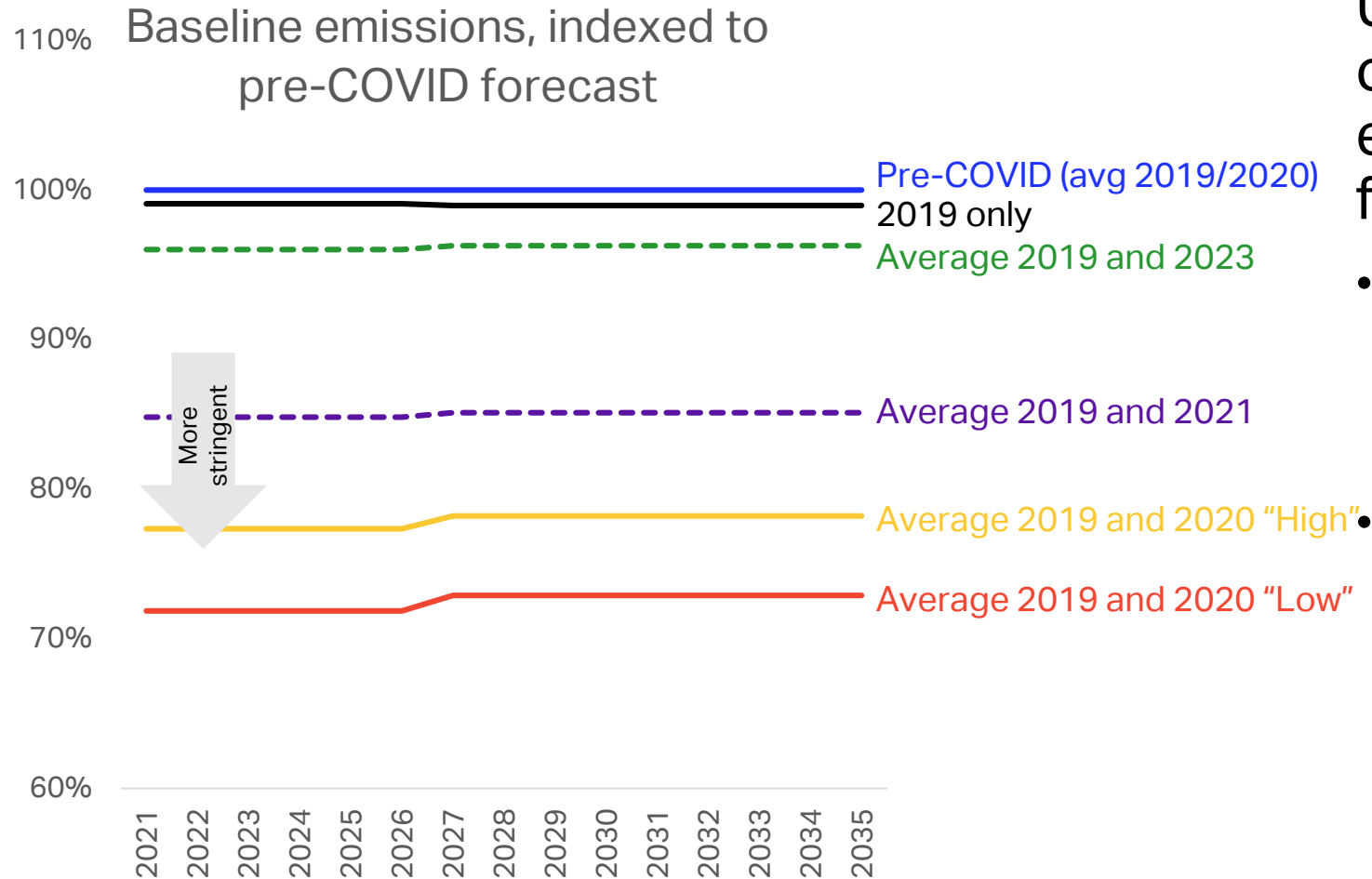
# Proposal to use 2019 emissions only



Using 2019 emissions only is equivalent to what the baseline would have been without the crisis

- Baseline emissions with a 2019-only baseline would be within 1.2% of the pre-COVID forecast
- Keeping 2020 would lower baseline emissions by as much as 28%

# Are there other workable options?



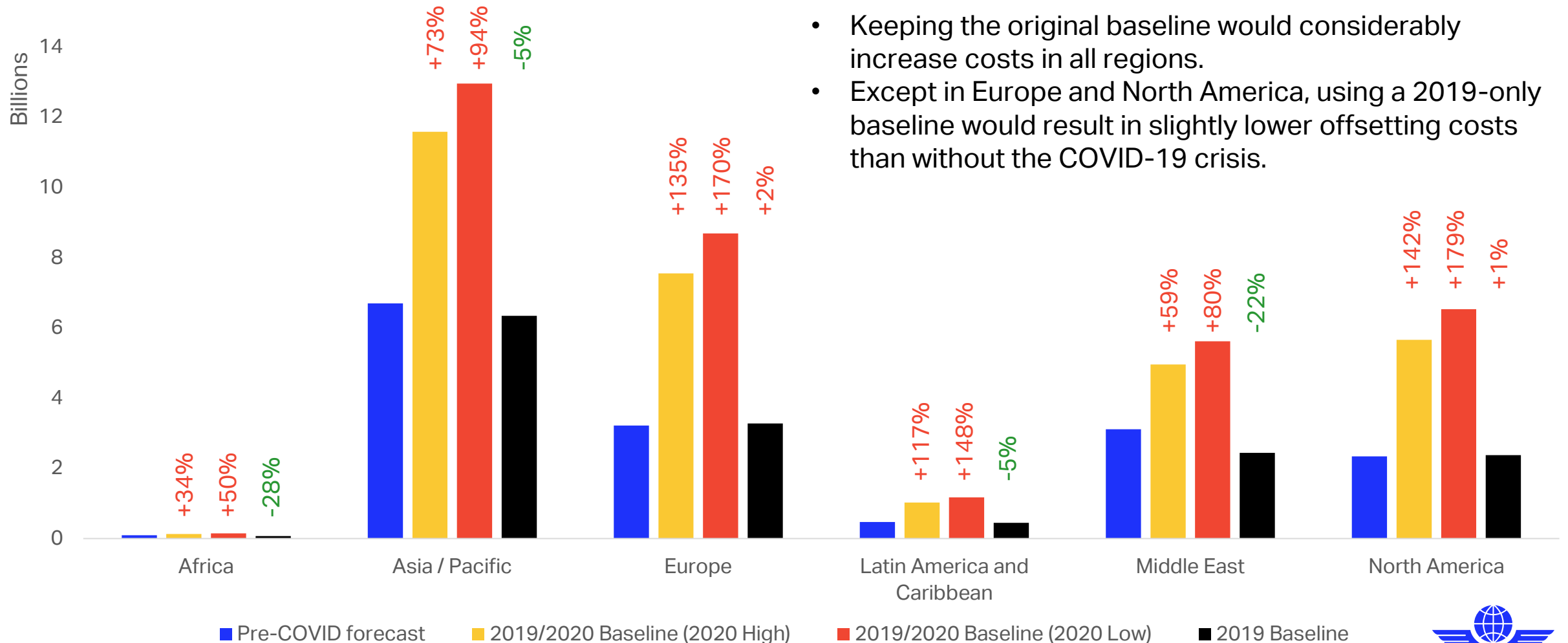
Using 2019 emissions only is the option that is most likely to be equivalent to the pre-COVID-19 forecast.

- Other options, including using 2019 and 2023 emissions, would result in lower (=more stringent) baselines than 2019 only.

2019 offers more certainty and less risk: the recovery could be slower than foreseen in IATA's baseline forecast (slower recovery from economic crisis, longer duration of pandemic).

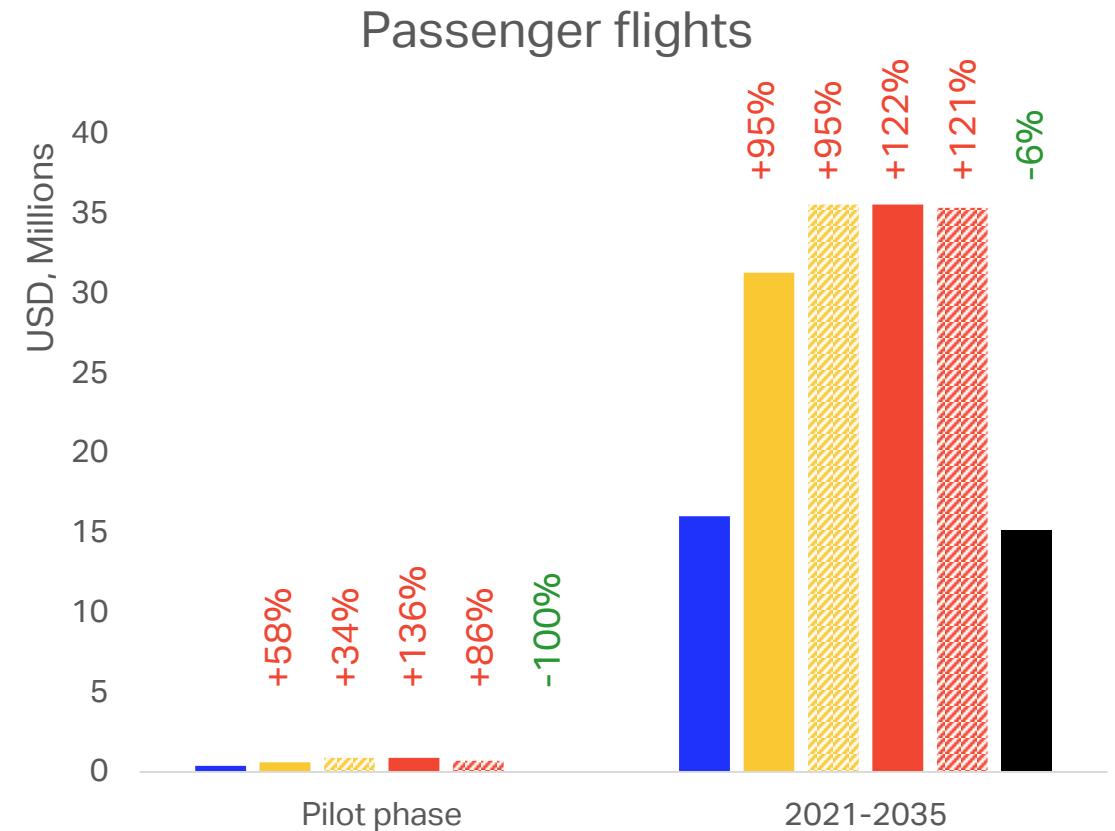
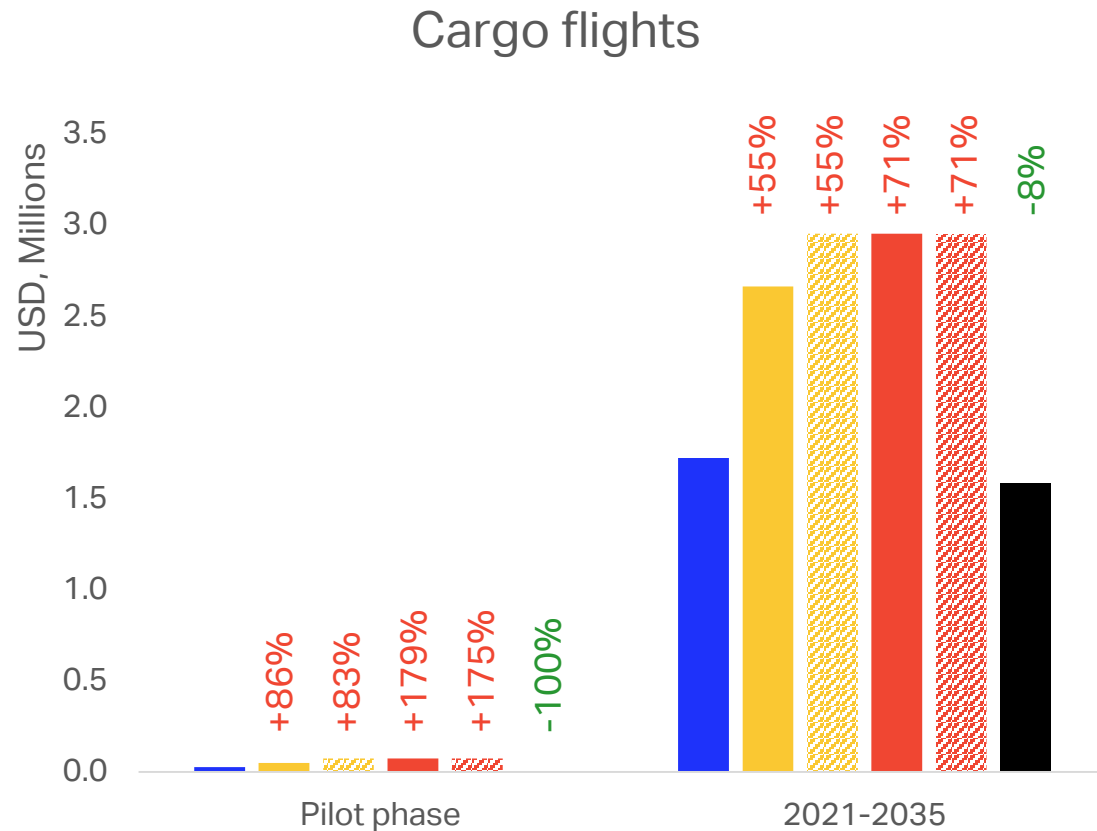
# Offsetting costs for scheduled pax flights, by region

(based on administrating authority of airlines)





# Impact on cargo flights (offsetting costs)



Pre-COVID-19

COVID-19, 2019 baseline

COVID-19, "2020 High"

COVID-19, "2020 High", with  
alt. method in pilot phase

COVID-19, "2020 Low"

COVID-19, "2020 Low", with  
alt. method in pilot phase



Will waiting another  
3 months provide  
valuable additional  
information or  
data?

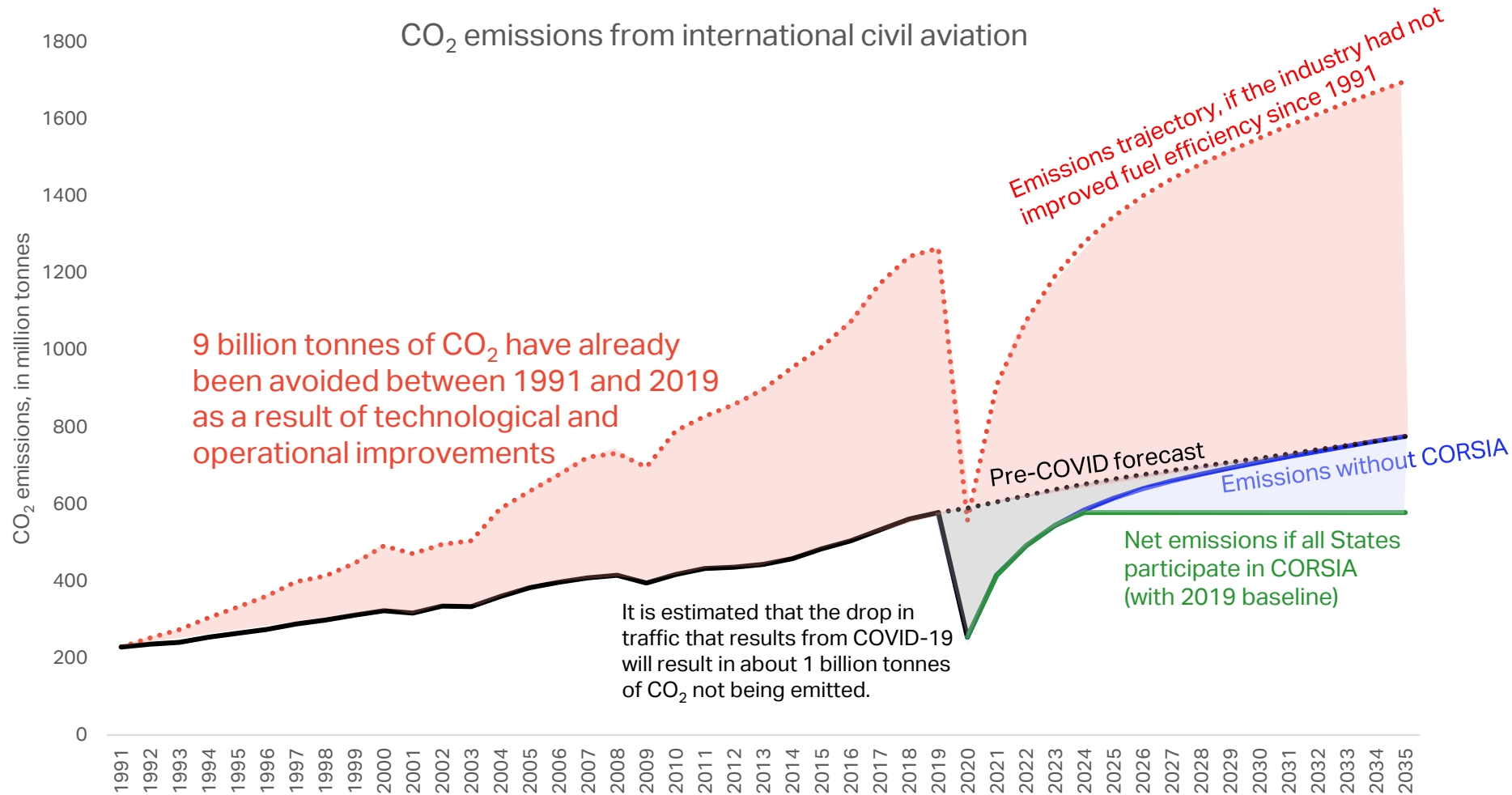
It is not reasonable to set CORSIA's baseline when the global fleet is grounded. No additional analysis is needed to reach that conclusion

Even in an unrealistic scenario where all international flights resumed in the second half of 2020, 2020 emissions would still be reduced by about 27%

More analysis and forecasting will not provide more certainty on the recovery



# ICAO's aspirational targets will be met with a 2019 baseline



In-sector measures will remain at the forefront of our climate action

Offsetting through CORSIA will ensure that emissions are stabilized in the mid-term (at about 600 million tCO<sub>2</sub>), supplementing what can be achieved through technology, sustainable aviation fuels, operations and infrastructure improvements.

# Contact

[corsia@iata.org](mailto:corsia@iata.org)



s22


**From:** s47F@virginaustralia.com>  
**Sent:** Thursday, 11 June 2020 10:15 AM  
**To:** s22  
**Cc:**  
**Subject:** RE: CORSIA Reporting [SEC=UNCLASSIFIED] [SEC=OFFICIAL]

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi s22

That's perfect, thanks for confirming.

Cheers,  
s47F

 s47F Sustainability Insights & Reporting Leader  
56 Edmondstone Road, Bowen Hills, QLD 4006 Australia  
s47F

---

**From:** s22@infrastructure.gov.au>  
**Sent:** Tuesday, 9 June 2020 5:25 PM  
**To:** s47F@virginaustralia.com>  
**Cc:** s22@infrastructure.gov.au>  
**Subject:** RE: CORSIA Reporting [SEC=UNCLASSIFIED] [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thank you for your email, and apologies for the delay in getting back to you. It's good to virtually 'meet' you as well.

Based on Virgin Australia's approved Emissions Monitoring Plan, we would be expecting to receive a single, consolidated Emissions Report for the Virgin Australia group. However, if this is the case, we would expect all international flying be captured, rather than assessing the reporting thresholds of each company/AOC individually.

If you would like to discuss further please let us know.

Kind regards,

s22  
A/g Assistant Director |  
International Air Transport and  
Trade  
Aviation Industry Policy | Aviation  
and Airports  
Department of Infrastructure,



**Australian Government**

**Department of Infrastructure, Transport,  
Regional Development and Communications**

s22

s22

GPO Box 594, Canberra ACT 2601

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OFFICIAL

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**From:** s47F <[redacted]@virginaustralia.com>  
**Sent:** Tuesday, 2 June 2020 9:27 AM  
**To:** s22 <[redacted]@infrastructure.gov.au>  
**Subject:** CORSIA Reporting [SEC=UNCLASSIFIED]

Hello s22

Nice to e-meet you. Passing this on in s47F absence.

Cheers,  
s47F

---

**From:** s47F <[redacted]@infrastructure.gov.au>  
**Sent:** Tuesday, 2 June 2020 9:25 AM  
**To:** s22 <[redacted]@infrastructure.gov.au>  
**Cc:** s2 s22 <[redacted]@infrastructure.gov.au>  
**Subject:** RE: CORSIA Reporting [SEC=UNCLASSIFIED]

Good morning s22

I have taken over responsibility for Virgin Australia's sustainability reporting with Jodi's departure and am coordinating our CORSIA audit. Hoping to get some guidance on the number of Emissions Reports you are expecting, namely whether the data for the VAI and VAA flying needs to be separated into two reports, or can be reported in a single emissions report? We have been advised of additional audit costs for multiple reports so hoping to manage this while being compliant with requirements.

For context, the majority of international flying is operated on our VAI AOC (approx 1.1m tCO2-e) and a smaller amount on our VAA AOC (approx 200k tCO2-e). In addition to this, flying for VARA and Tigerair (maintenance flights) and wetlease flying conducted by Alliance Airlines on behalf of VAI (for support on our Brisbane – Port Moresby route) are all under 10,000t CO2-e of emissions, so we understand that these would be exempt from CORSIA per Paragraph 13 of the Assembly Resolution A39-3?

Appreciate your guidance.

Best regards,  
s47F



s47F | Sustainability Insights & Reporting Leader

s47F

---

**From:** s22 <[REDACTED]@infrastructure.gov.au>  
**Sent:** Thursday, 29 November 2018 3:48 PM  
**To:** s47F <[REDACTED]@virginaustralia.com>  
**Cc:** s22 <[REDACTED]@infrastructure.gov.au>  
**Subject:** RE: CORSIA Reporting [SEC=UNCLASSIFIED]

Hi s47

Please find below a response to your questions, apologies for the delay! In terms of question 2, are you asking whether emissions from international trips for maintenance of domestic aircraft are eligible to be counted as part of CORSIA?

1. We have assumed that we will have one EMP that covers all Group flying activities, is this correct? If we have multiple AOCs how will that work?  
[Fine for VA to have one EMP that covers all Group flying activities. In terms of the EMP, in Section 2e the 'Aeroplane operator identification...' tab, use the box at Section 2e5 'Information about the certificate' to list the AOCs and the information required by Sections 2e1-3.](#)
2. Currently, only Virgin Australia flies internationally, but we have fuel related to offshore maintenance for other parts of the Group. Can you confirm that this is captured by the CORSIA?
3. If at some point in the future another part of the Group starts flying internationally, will the EMP need to be amended?  
[Yes it will.](#)
4. Relating to the airplane registration numbers: we have a lot of aircraft that fly on both domestic and international routes. If maintenance is included, presumably all of our aircraft will go offshore at some point. We're assuming that we should just list our entire fleet in case of future network changes as well as offshore maintenance. Are you happy with this approach?  
[Happy for you to list the entire fleet for flexibility.](#)

Regards,

s22

Assistant Director  
International Air Transport | Aviation Industry Policy  
Department of Infrastructure, Regional Development and Cities

s22

---

**From:** s47F <[REDACTED]@virginaustralia.com>  
**Sent:** Friday, 23 November 2018 11:33 AM  
**To:** s22 <[REDACTED]@infrastructure.gov.au>  
**Cc:** s22 <[REDACTED]@infrastructure.gov.au>  
**Subject:** RE: CORSIA Reporting [SEC=UNCLASSIFIED]

Hi s22

Thanks for the call today, good to see things are progressing along in the CORSIA.

I have a few questions around the EMP:

1. We have assumed that we will have one EMP that covers all Group flying activities, is this correct? If we have multiple AOCs how will that work?
2. Currently, only Virgin Australia flies internationally, but we have fuel related to offshore maintenance for other parts of the Group. Can you confirm that this is captured by the CORSIA?
3. If at some point in the future another part of the Group starts flying internationally, will the EMP need to be amended?
4. Relating to the airplane registration numbers: we have a lot of aircraft that fly on both domestic and international routes. If maintenance is included, presumably all of our aircraft will go offshore at some point. We're assuming that we should just list our entire fleet in case of future network changes as well as offshore maintenance. Are you happy with this approach?

Let me know if you would like any clarification on the above.

Best regards,

s47F



s47F | Group Sustainability Leader  
Level 5, 7 Macquarie Place, Sydney NSW 2000

s47F

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**From:** s22 [@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)  
**Sent:** Tuesday, 20 November 2018 2:48 PM  
**To:** s47F [@virginaustralia.com](mailto:s47F@virginaustralia.com)>  
**Cc:** s22 [@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: CORSIA Reporting [SEC=UNCLASSIFIED]

Hi s47F

Thanks for the email.

To confirm, no additional information (beyond the ICAO template) will be required from us for the EMP.

Thanks,

s22

---

**From:** s47F [@virginaustralia.com](mailto:s47F@virginaustralia.com)>  
**Sent:** Tuesday, 20 November 2018 1:32 PM  
**To:** s22 [@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: CORSIA Reporting [SEC=UNCLASSIFIED]

Good afternoon s22

I hope you're having a good week so far.



Following up on previous discussions around the format of our Emissions Monitoring Plan. We have been working off the template provided by ICAO and I wanted to check in with you to confirm whether or not you will require any different/additional information.

Best,

s47

---

**From:** s22 @infrastructure.gov.au]

**Sent:** Friday, 9 November 2018 3:56 PM

**To:** s47F @virginaustralia.com>

s22 infrastructure.gov.au>

**Subject:** RE: CORSIA Reporting [SEC=UNCLASSIFIED]

Good afternoon s47

We're in the processes of finalising the process, but I can confirm that Virgin Australia will receive written advice of the Government's implementation plan. At this point it is likely to involve variation of the International Airline Licence. We will be in touch in the next couple of weeks regarding the timing.

In terms of the reporting, the Emission Monitoring Plan (and later the Emissions Report) will need to be provided directly to us. The SARPs require approval of the EMP by 28 February 2019, however we would prefer to finalise the EMP this year. We would also be happy to review a preliminary draft of VA's EMP should you have any questions or concerns.

Regards,

s22

---

**From:** s47F @virginaustralia.com>

**Sent:** Wednesday, 7 November 2018 9:33 AM

**To:** s22 @infrastructure.gov.au>

**Subject:** CORSIA Reporting

Hi s22

I hope you're well.

Following up from our call a couple of weeks ago, will you be providing written notice of the Government's intention to link the CORSIA reporting to an airline's AOC? I'm trying to ensure the right levels within Virgin Australia are informed on our future obligations and would like to include confirmation on how the reporting will work going forward.

Best regards,

s47



s47F

| Group Sustainability Leader

Level 5, 7 Macquarie Place, Sydney NSW 2000

s47F

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s22

**From:** s22  
**Sent:** Thursday, 11 June 2020 2:05 PM  
**To:** s47F  
**Cc:** s22  
**Subject:** RE: CORSIA MRV [SEC=OFFICIAL]

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

OFFICIAL

Hi s47F

Happy to have a chat at 3.30. Assuming that you and s47F will be dialling in separately, suggest we use our teleconference line:

Phone: 1800 556 264  
 PIN: 377 5074 #

Kind regards,

s22

A/g Assistant Director |  
 International Air Transport and  
 Trade  
 Aviation Industry Policy | Aviation  
 and Airports  
 Department of Infrastructure,  
 Transport, Regional Development  
 and Communications

s22

GPO Box 594, Canberra ACT 2601



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**Department of Infrastructure, Transport,  
 Regional Development and Communications**

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OFFICIAL

**From:** s47F @qantas.com.au>  
**Sent:** Thursday, 11 June 2020 1:31 PM  
**To:** s22 infrastructure.gov.au>  
**Subject:** CORSIA MRV

Hi s22

Could we set up a call to discuss the verification requirements with you and s22 It will be s47F and I from the Qantas side. We could do after 3.30 today if you have a window today.

Many thanks!

s47F



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s22

**From:** s22  
**Sent:** Friday, 12 June 2020 2:19 PM  
**To:** s47F  
**Cc:** s22  
**Subject:** RE: CORSIA MRV [SEC=OFFICIAL]  
**Attachments:** CCR Information and Data for Transparency\_Apr2020\_FINAL\_web.pdf;  
 FAQ\_RemoteVerification\_States\_v13.docx

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

OFFICIAL

Hi s47F

Thanks for the discussion yesterday. As mentioned, please find attached the latest list of approved verifiers (last updated in 27 April), as well as ICAO's draft guidance on remote verification.

We'll be sure to keep you posted on any updates regarding reporting timeframes, and the baseline decision as they come to hand.

Kind regards,

s22

A/g Assistant Director |  
 International Air Transport and  
 Trade  
 Aviation Industry Policy | Aviation  
 and Airports  
 Department of Infrastructure,  
 Transport, Regional Development  
 and Communications

s22



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OFFICIAL

**From:** s47F @qantas.com.au>  
**Sent:** Thursday, 11 June 2020 1:31 PM  
**To:** s22 @infrastructure.gov.au>  
**Subject:** CORSIA MRV

Hi s22

Could we set up a call to discuss the verification requirements with you and s22 ? It will be s47F and I from the Qantas side. We could do after 3.30 today if you have a window today.

Many thanks!

s47F



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## **GUIDANCE ON REMOTE VERIFICATION UNDER THE CORSIA MRV SYSTEM**

### **What can be the specific role of remote verification techniques when an extraordinary event or circumstance prevents site visits?**

The decision to undertake a site visit as part of the verification of the aeroplane operator's emissions report is to be taken by the verification body on a per operator and per engagement basis and on the basis of the risk analysis; conducting a risk analysis is a mandatory requirement for the verification body according to Annex 16, Volume IV, Appendix 6, paragraph 3.6. The ETM (Doc 9501), Volume IV, section 3.3.4.2 provides further guidance on the relationship between the risk analysis and site visit activities. In cases where site visit verification activities are deemed necessary by the verification body but cannot be undertaken within applicable deadlines due to an extraordinary event or circumstances<sup>1</sup> beyond the control of the aeroplane operator or verification body, the verification body should coordinate with the State<sup>2</sup> to which the aeroplane operator is attributed on whether alternative approaches can be used and are acceptable by the State, on an exceptional basis, to replace on-site verification activities. Such an approach may include remote verification (e.g., video conferencing, upload of data in a secure data room, or direct independent access to flight information). The verification body should be prepared to justify its decision to resort to an alternative approach, provide additional information on the alternative approach, and to demonstrate how it will ensure a robust verification approach and credible data; it may also include the submission of a preliminary report by the deadline, with a follow-up site visit when conditions permit.

### **What should a State generally consider when coordinating with a verification body on a remote verification approach for emissions reports?**

Guidance in the ETM (Doc 9501), Volume IV, section 3.3.4.2 recommends that the verification body coordinate with the State before replacing the site visit with a remote verification approach. The following table provides guidance to facilitate the State's consideration of a remote verification as an alternative to a site visit. Most background information required would be found in the Emissions Monitoring Plan of the aeroplane operator. The State could also consult with the aeroplane operator, if needed.

In particular, the State should consider whether the verification body has proposed sufficient and appropriate measures to ensure that those verification activities, which may be more difficult to undertake remotely, can be carried out effectively. Such verification activities could include confirming the analysis of data flow, actual procedures and control activities according to the implementation status of the Emissions Monitoring Plan.

---

<sup>1</sup> As defined in IAF ID 3:2011, IAF Informative Document for Management of Extraordinary Events or Circumstances affecting ABs, CABs, and Certified Organizations [[https://www.iaf.nu/upFiles/IAFID32011\\_Management\\_of\\_Extraordinary\\_Events\\_or\\_Circumstances.pdf](https://www.iaf.nu/upFiles/IAFID32011_Management_of_Extraordinary_Events_or_Circumstances.pdf)]

<sup>2</sup> State refers to administering authority, which is recommended to coordinate with the relevant National Accreditation Body

The decision by a verification body to conduct its verification activity remotely is only applicable to an individual verification engagement and should be reassessed for future verification activities, in light of the risk assessments and experience gained. If the verification body decides to use remote verification for a future engagement, it should consult with the State again.

The table of considerations by the State below is organized by the responsibilities of different CORSIA stakeholders (State, aeroplane operator, and verification body) involved in the CORSIA verification activities. Based on the responsibilities of each stakeholder as set out in Annex 16, Volume IV, sample criteria have been identified. Each criterion is associated with a number of considerations (in the form of recommended questions) for the State reviewing a coordination inquiry from a verification body for a remote verification approach. The final column in the table provides background information for the State and additional supporting information that could be provided by the verification body in order to build understanding of the verification risk and appropriateness of the remote verification approach.

Responsibility	Sample criteria	Considerations by the State	Background information for the State, and additional supporting information to be provided by the verification body
State	Status of approval of Emissions Monitoring Plan	<ul style="list-style-type: none"> <li>Is the latest version of the Emissions Monitoring Plan approved and valid?</li> <li>Does the approval include additional conditions imposed by the State, e.g. to address missing requirements in the Emissions Monitoring Plan such as record keeping procedures by the aeroplane operator?</li> <li>Was the Emissions Monitoring Plan recently re-approved with significant material changes to it?</li> </ul>	In cases where the Emissions Monitoring Plan has not yet been reviewed by the State or includes substantial additional conditions imposed by the State, the verification risk is increased. Consequently, the verification body should explain how the remote verification would result in sufficient evidence on the correct implementation of the Emissions Monitoring Plan.
	Findings of previous order of magnitude checks <sup>3</sup>	<ul style="list-style-type: none"> <li>Did the previous year's order of magnitude check identify any concerns/issues with the emissions report and verification report?</li> <li>Did the verification statement of the previous emissions report include any significant comments or limitations?</li> </ul>	Results of previous order of magnitude checks might support or demonstrate limitations of the currently used verification approach. In coordination with the State, the verification body should be in the position to explain which applied verification techniques are being used during the remote verification to mitigate the risk that issues identified in the order of magnitude check would be arising again.

<sup>3</sup> Only applicable from the second CORSIA verification onwards

Responsibility	Sample criteria	Considerations by the State	Background information for the State, and additional supporting information to be provided by the verification body
Aeroplane operator	CORSIA CO <sub>2</sub> Estimation and Reporting Tool (CERT) or fuel use monitoring method	<ul style="list-style-type: none"> <li>Is CO<sub>2</sub> emissions determined by a fuel use monitoring method, or through the CERT?</li> </ul>	<p>Requirements for monitoring and processing of data are more demanding and therefore error prone if actual fuel use is determined by fuel use monitoring methods and CO<sub>2</sub> emissions are not estimated through the CERT.</p> <p>The use of the CERT is a good indicator for the feasibility of a remote verification. On the contrary, if the aeroplane operator uses a fuel use monitoring method, the verification body should provide information on how other criteria included in this table, such as data storage and availability, would be assessed.</p>
	Recent changes to operations <sup>3</sup>	<ul style="list-style-type: none"> <li>Has the aeroplane operator undergone any changes since the last verification? (to operations, fleet, monitoring methods, data management methods etc.)</li> </ul>	<p>The verification body could provide information on its approach to assess significant changes during the remote verification and how their potential impact would be determined.</p>
	Complexity of monitoring, size of aeroplane operator and reporting readiness	<ul style="list-style-type: none"> <li>How complex is the overall system for tracking and monitoring data and managing data quality?</li> <li>What materiality level is applicable?</li> <li>How much experience does the aeroplane operator have complying with and reporting under CORSIA<sup>3</sup> or other GHG schemes?</li> </ul>	<p>The complexity of the monitoring can be determined by aspects such as fleet size, number of flights and aircraft types, manual or automatic control procedures, type of fuel use monitoring method, number of interfaces and IT systems in the data flow, level of outsourcing, wet lease arrangements, availability of secondary data, assigned responsibilities, use of CORSIA eligible fuels, number of data gaps, internal auditing and the possibility to confirm emissions with external data such as public flight schedules.</p> <p>Based on the results of its assessment, the verification body could provide explanations on how the specific remote verification techniques are applied to gain sufficient and appropriate evidence to guarantee a reasonable level of assurance.</p> <p>According to Annex 16, Volume IV, Appendix 6, 3.4 the materiality threshold for an aeroplane operator with CO<sub>2</sub> emissions above 500 000 tonnes is 2 per cent. For an aeroplane operator with CO<sub>2</sub> emissions equal or below 500 000 tonnes a 5 per cent threshold is applicable. A lower threshold corresponds with an increased</p>



Responsibility	Sample criteria	Considerations by the State	Background information for the State, and additional supporting information to be provided by the verification body
			requirement for the verification body to demonstrate the applicability of the specific remote verification design.
	Data storage and data availability with access to primary data sources	<ul style="list-style-type: none"> <li>Is the aeroplane operator able to provide the verification body with the required remote access to its primary data sources?</li> </ul>	The verification body could provide summary information on the approach employed by the aeroplane operator and elaborate how the data will be accessed. This could include, e.g., means of access to operator information such as direct and independent access to operator information and measures implemented to ensure stepwise interactions with significant time lags do not increase the risk of oversights and errors (e.g. by communicating through email exchange).
Verification body	Technical capabilities	<ul style="list-style-type: none"> <li>Does the verification body have the technical capability to perform remote verifications via video conferencing and secure data transmission and storage?</li> </ul>	The verification body should provide information on the technical means (e.g. name of software) to not limit interactions between the aeroplane operator and the verification body and how any technical issues will be minimized to ensure the successful implementation of the remote verification.
	Experience	<ul style="list-style-type: none"> <li>Has the verification body conducted a site visit of the aeroplane operator in recent years?</li> <li>Does the verification body have experience conducting remote verifications?</li> </ul>	If the verification body is conducting its first verification with an aeroplane operator, or if it has not been on the aeroplane operator's site before (e.g. during a preliminary verification), it might be confronted with unexpected challenges during the verification which could be difficult to solve during a remote verification. The State is encouraged to request information from the verification body on its experience in these areas. As CORSIA implementation progresses, the verification body's experience in conducting verifications under CORSIA should be taken into consideration.
	Accreditation	<ul style="list-style-type: none"> <li>Does the verification body's accreditation and / or internal procedures include remote verification techniques?</li> </ul>	The State may want to seek confirmation from the verification body on whether applied remote verification techniques and processes were part of the CORSIA accreditation process. For this specific purpose, the verification body could be invited to submit internal documentation to the State outlining accredited remote verification procedures. Where the accreditation does not cover remote verification techniques, a State may want to seek further information from the verification body on their experience

Responsibility	Sample criteria	Considerations by the State	Background information for the State, and additional supporting information to be provided by the verification body
			conducting remote verifications as per the guidance provided in this table, including any internal procedures applicable to remote verification.



# ICAO

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

## ICAO document

### **CORSIA Central Registry (CCR): Information and Data for Transparency**



April 2020



**Carbon Offsetting and Reduction Scheme for International Aviation**

This ICAO document is referenced in Annex 16 — *Environmental Protection*, Volume IV — *Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)*. This ICAO document is material approved by the ICAO Council for publication by ICAO to support Annex 16, Volume IV and is essential for the implementation of the CORSIA. This ICAO document is available on the ICAO CORSIA website and may only be amended by the Council.

**Disclaimer:** *The designations employed and the presentation of the material presented in this ICAO document do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.*

The table below shows the amendments to this ICAO document over time, together with the dates on which the amendments were approved by the Council.

**Amendments to the ICAO document  
“CORSIA Central Registry: Information and Data for Transparency”**

<i>Edition</i>	<i>Amendment</i>	<i>Approved</i>
2 <sup>nd</sup> Edition	Information on 16 verification bodies from six States. South Africa provided information for the first time.	20 Sep 2019
3 <sup>rd</sup> Edition	Information on 24 verification bodies from eight States. China and Senegal provided information for the first time.	28 Nov 2019
4 <sup>th</sup> Edition	Information on 26 verification bodies from ten States. Czechia and India provided information for the first time.	24 Dec 2019
5 <sup>th</sup> Edition	Information on 31 verification bodies from 13 States. Japan, Mexico and Thailand provided information for the first time. India updated the information previously submitted.	4 Mar 2020
6 <sup>th</sup> Edition	Information on 40 verification bodies from 17 States. Chile, France, Germany and Netherlands provided information for the first time. Thailand and United Kingdom updated the information previously submitted.	30 April 2020

## Verification Bodies Accredited in States

Last updated: 27 April 2020

**State:** Chile

Verification Body Name
SGS TECNOS, S.A.U.

**State:** China

Verification Body Name
Beijing Capital Airport Energy Saving Technology Service Co. Ltd
China Classification Society Certification Company (CCSC)
China Quality Certification Centre
Guangzhou CEPREI Certification Body
Second Research Institute of Civil Aviation Administration of China
Tianjin CAUC Zhongtian Science and Technology Development Co. Ltd

**State:** Costa Rica

Verification Body Name
INTECO

**State:** Czechia

Verification Body Name
VERIFIKACE CZ

**State:** France

Verification Body Name
E&Y Associés
VERIFAVIA SARL

**State:** Germany

Verification Body Name
ETSverification GmbH
KPMG Cert GmbH
Müller-BBM Cert GmbH

**State:** India

Verification Body Name
M/s Bureau Veritas India Pvt. Ltd.
TUV India Pvt. Ltd.

**State:** Japan

Verification Body Name
NIPPON KAIJI KYOKAI

**State:** Mexico

Verification Body Name
ADDERE SOLUTIONS, S.C.
Ruby Canyon Engineering, Inc.

**State:** Netherlands

Verification Body Name
PricewaterhouseCoopers Certification B.V.

**State:** Senegal

Verification Body Name
VERIFAVIA

**State:** Singapore

Verification Body Name
TÜV SÜD PSB Pte Ltd
Verifavia (Singapore) Pte. Ltd.

**State:** South Africa

Verification Body Name
CoZero

**State:** Spain

Verification Body Name
AENOR INTERNACIONAL, S.A.U.
SGS TECNOS, S.A.U

**State:** Thailand

Verification Body Name
Management System Certification Institute (Thailand), Foundation for Industrial Development
TUV NORD (Thailand) Ltd.

**State:** United Kingdom

Verification Body Name
Bureau Veritas Certification Holding SAS (UK branch)
Lucideon CICS Limited
SGS United Kingdom Limited
VerifAvia (UK) Ltd

**State:** United States

Verification Body Name
Aster Global Environmental Solutions, Inc. (AGES)
First Environment, Inc.
GHD Limited
INSAFAC
Internat Energy Solutions Canada Inc.
NSF Certification, LLC
Ruby Canyon Engineering
SCS Global Services

– END –

s22

**From:** s22  
**Sent:** Tuesday, 16 June 2020 12:15 PM  
**To:** s47F  
**Cc:** s22  
**Subject:** RE: CORSIA MRV [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Just a quick update - we understand that Council did not reach an outcome from CORSIA discussions on Friday, but the subject will be picked up again during this session. We will let you know when we hear more.

Kind regards,

s22

OFFICIAL

**From:** s47F t@qantas.com.au>  
**Sent:** Monday, 15 June 2020 8:56 AM  
**To:** s22 infrastructure.gov.au>; s47F @qantas.com.au>  
**Cc:** s22 @infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Subject:** RE: CORSIA MRV [SEC=OFFICIAL]

Hi s22

Many thanks for this and for your time on Thursday.

Look forward to hearing the outcome on the Council on Friday.

Cheers

s47F

**From:** s22 infrastructure.gov.au>  
**Sent:** Friday, 12 June 2020 2:19 PM  
**To:** s47F t@qantas.com.au>; s47F @qantas.com.au>  
**Cc:** s22 infrastructure.gov.au>; s22 infrastructure.gov.au>  
**Subject:** RE: CORSIA MRV [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thanks for the discussion yesterday. As mentioned, please find attached the latest list of approved verifiers (last updated in 27 April), as well as ICAO's draft guidance on remote verification.

We'll be sure to keep you posted on any updates regarding reporting timeframes, and the baseline decision as they come to hand.



Kind regards,

s22

A/g Assistant Director |  
International Air Transport and  
Trade  
Aviation Industry Policy | Aviation  
and Airports  
Department of Infrastructure,  
Transport, Regional Development  
and Communications

s22

GPO Box 594, Canberra ACT 2601



**Australian Government**

**Department of Infrastructure, Transport,  
Regional Development and Communications**

*The department proudly acknowledges the Traditional Owners and Custodians of Australia, and their continuing connections to the land, waters and communities. We pay our respects to them and to their Elders past, present and emerging.*

OFFICIAL

**From:** s47F <[redacted]@qantas.com.au>

**Sent:** Thursday, 11 June 2020 1:31 PM

**To:** s22 <[redacted]@infrastructure.gov.au>

**Subject:** CORSIA MRV

Hi Ellen

Could we set up a call to discuss the verification requirements with you and [redacted] It will be s47F and I from the Qantas side. We could do after 3.30 today if you have a window today.

Many thanks!

s47F

[qantas.com](http://qantas.com) | [facebook.com/qantas](https://facebook.com/qantas) | [twitter.com/qantasairways](https://twitter.com/qantasairways) | [youtube.com/qantas](https://youtube.com/qantas)



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s22

**From:** s47F  
**Sent:** Thursday, 18 June 2020 7:05 PM  
**To:** s22  
**Cc:**  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]  
**Attachments:** ExecuJet Australia CORSIA Emissions Monitoring Plan Rev 1.pdf; CORSIA EMP 2019 Ver 1.xlsx

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi s22

I hope you and the department are all well.

We are preparing our Emissions report and have now attached an updated version of our EMP. Our original plan was not approved in 2019 as we expected to be below the threshold. I have left this the same in the plan but can update if you need as we are now over the threshold.

Please could this be reviewed and advise if any changes need to be made prior to approval. I have attached the original plan which we had submitted and have made a few amendments. I have left this at Version 1 as the original was never approved. Let me know if you want this done differently.

Also, can you advise if we need to report by state pair or aerodrome pairs?

Please let me know if you need further information.

Regards

s47F

---

**From:** s22 @infrastructure.gov.au>  
**Sent:** Friday, 27 March 2020 4:34 PM  
**To:** s47F  
**Cc:** s22 infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thank you for your email.

We acknowledge your request for a suspension or delay of the CORSIA program, in light of the unprecedented challenges for the aviation industry as a result of the coronavirus outbreak. Given the impact of the virus, there will be work going in ICAO in the coming weeks/months on a range of issues relating to CORSIA including the baselines and timeframes, and we will certainly take ExecuJet's position on board and keep you in the loop as that work proceeds.

As an initial step, our Department is able to offer an extension on the due date for Australian airlines' verified 2019 emissions reports to **31 July 2020** (currently 31 May), while still allowing us to meet our national reporting deadline to ICAO. If there is a wider decision at the ICAO level to extend deadlines for airline and/or national reporting requirements, we will update you accordingly.

If you have any further queries at this stage, please let us know.

Kind regards,  
s22

OFFICIAL

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**From:** s47F  
**Sent:** Tuesday, 24 March 2020 10:36 PM  
**To:** s22 @infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Cc:** s22 @infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Dear s22

Whilst I have started to engage verifiers to complete the verification process of our submission I would like to request if a suspension or a delay to the CORSIA program can be considered as we all grapple with the impacts of the Corona Virus. Whilst we are not yet required to purchase carbon offsets the verification process has a rather significant cash outlay for which we would rather not proceed with at this time. The impacts of the Corona Virus to Australian businesses over the coming months will be significant and any cash savings opportunities need to be pursued to protect the industry, ExecuJet as an organization, and all of our employees over the long term. We therefore respectfully request that a program delay be considered.

I trust this proposal will be seriously considered and looking forward to a favourable response. I am available to discuss the above should it be necessary.

Regards  
s47F

---

**From:** s22 t@infrastructure.gov.au>  
**Sent:** Friday, 13 March 2020 12:47 PM  
**To:** s47F  
**Cc:** s22 @infrastructure.gov.au>; s22 @infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

My apologies for the late notice, however would it be possible to reschedule our conversation until later this afternoon or Monday? We are currently dealing with some urgent matters in relation to coronavirus.

Kind regards,  
s22

OFFICIAL

---

**From:** s47F  
**Sent:** Thursday, 12 March 2020 1:13 PM  
**To:** s22 <t@infrastructure.gov.au>  
**Cc:** s22 <t@infrastructure.gov.au>; s22 <t@infrastructure.gov.au>  
**Subject:** Re: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Thanks s22

I will call you then.

Regards  
s47F

---

**From:** s22 <t@infrastructure.gov.au>  
**Sent:** Thursday, March 12, 2020 12:41:41 PM  
**To:** s47F <t@infrastructure.gov.au>  
**Cc:** s22 <t@infrastructure.gov.au>; s22 <t@infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Friday at 1300 is good for me - you can reach me on 02 6274 s47F

Kind regards,

s22

OFFICIAL

---

**From:** s47F <t@infrastructure.gov.au>  
**Sent:** Wednesday, 11 March 2020 6:09 PM  
**To:** s22 <t@infrastructure.gov.au>  
**Cc:** s22 <t@infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22

That would be great. Could we make it Friday afternoon at 1300 if possible?

Regards  
s47F

---

**From:** s22 <t@infrastructure.gov.au>  
**Sent:** Wednesday, 11 March 2020 5:46 PM  
**To:** s47F <t@infrastructure.gov.au>  
**Cc:** s22 <t@infrastructure.gov.au>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Happy to schedule a call for either Thursday afternoon or Friday this week. When would be most convenient for you?

Kind regards,

s22

A/g Assistant Director |  
International Air Transport and  
Trade  
Aviation Industry Policy | Aviation  
and Airports  
Department of Infrastructure,  
Transport, Regional Development  
and Communications

s22



**Australian Government**

**Department of Infrastructure, Transport,  
Regional Development and Communications**

GPO Box 594, Canberra ACT 2601

*The department proudly acknowledges the Traditional Owners and Custodians of Australia, and their continuing connections to the land, waters and communities. We pay our respects to them and to their Elders past, present and emerging.*

OFFICIAL

**From:** s47F  
**Sent:** Tuesday, 10 March 2020 9:00 PM  
**To:** s22  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22

We are in contact with verifiers but wanted to see what our next steps are. Are we able to schedule a call this week.

Thanks  
s47F

**From:** s22 <t@infrastructure.gov.au>  
**Sent:** Friday, 6 March 2020 4:48 PM  
**To:** s47F  
**Cc:** s22  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thank you for your email. Please find attached the accredited verifiers list for your reference.

We will get back to you shortly with regard to the EMP/CERT and next steps.

Kind regards,

s22

A/g Assistant Director |  
International Air Transport and  
Trade  
Aviation Industry Policy | Aviation  
and Airports  
Department of Infrastructure,  
Transport, Regional Development  
and Communications

s22



**Australian Government**

**Department of Infrastructure, Transport,  
Regional Development and Communications**

GPO Box 594, Canberra ACT 2601

*The department proudly acknowledges the Traditional Owners and Custodians of Australia, and their continuing connections to the land, waters and communities. We pay our respects to them and to their Elders past, present and emerging.*

OFFICIAL

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**From:** s47F >  
**Sent:** Thursday, 5 March 2020 4:01 PM  
**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Cc:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>; s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22 and Team,

Please advise if you have been able to review the EMP and the CERT. Can you please send the accredited verifiers list through and advise what I need to do to finalize these reports.

Thanks  
s47F

---

**From:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Sent:** Tuesday, 3 March 2020 8:04 PM  
**To:** s47F  
**Cc:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>; s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thanks for sending through (the email actually got caught in our filter for “offensive words” – don’t know what it was they picked up).

As mentioned, I’ll get s47F (cc’d) to dust off the Emissions Monitoring Plan to ensure it meets our requirements.

Happy to send you a list of accredited verifiers but we won’t be able to be so bold as to recommend anyone – sorry.

Regards,

s22

OFFICIAL

**From:** s47F  
**Sent:** Friday, 28 February 2020 3:15 PM  
**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** ExecuJet Australia CORSIA CERT

Dear s22

Following our call yesterday please find attached our draft CORSIA CERT report. Included in the report are all Flights Operated by ExecuJet Australia for which we need to report on CORSIA. I do have a number of questions regarding the CERT and would appreciate some feedback and time next week to review so that this may be finalized. As it seems we will need to have the report verified please could you send me relevant details and possibly a recommendation.

Please also send relevant contact details for your office with whom I should deal with.

Regards  
Denis

s47F



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# CORSIA

## EMISSIONS MONITORING PLAN (EMP)

### CONTENTS

- 1 [Version control of Emissions Monitoring Plan](#)
- 2 [Aeroplane operator identification and description of activities](#)
- 3 [Fleet and operations data](#)
- 4 [Methods and means for calculating emissions](#)
  - 4.1 [Fuel Use Monitoring Method: Method A](#)
  - 4.2 [Fuel Use Monitoring Method: Method B](#)
  - 4.3 [Fuel Use Monitoring Method: Block-off / Block-on](#)
  - 4.4 [Fuel Use Monitoring Method: Fuel Uplift](#)
  - 4.5 [Fuel Use Monitoring Method: Fuel Allocation with Block Hour](#)
  - 4.6 [ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool \(CERT\)](#)
- 5 [Data management, data flow, control system, risk analysis and data gaps](#)

### Template Information

Template provided by:	s47F
Version (publication date):	2019-02-25

*Note: For the purpose of this template, international flight is defined as in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 2, 2.1.*



## 1 VERSION CONTROL OF EMISSIONS MONITORING PLAN

### a) Version No.

*Please enter version number of the current version.*

Version No. 1
---------------

### b) Version control

*If necessary, please fill in the table.*

Version No.	No. of previous version	Date of update	Emissions Monitoring Plan is valid from	Chapters where modifications have been made. Brief explanation of amendments.
1	Nil	2019-02-25	2019-01-01	Initial Draft

## 2 AEROPLANE OPERATOR IDENTIFICATION AND DESCRIPTION OF ACTIVITIES

(Annex 16, Volume IV, Appendix 4, 2.1)

### a) Name of the aeroplane operator

Please enter the name of the aeroplane operator. This name should be the legal entity engaged in the aeroplane operation, or the legal entity seeking to be the single entity for the CORSIA administration under a parent-subsidary arrangement.

ExecuJet Australia Pty Ltd

### b) Address of the aeroplane operator

Please enter the address of the aeroplane operator.

Address line:	Hangar 294 Ross Smith Avenue
City:	Mascot
State/Province/Region:	NSW
Postcode/ZIP:	2020
Country:	Australia

### c) Legal representative

Please enter a contact address of a representative who is legally responsible for the aeroplane operator for official correspondence.

Title:	s47F
First name:	s47
Surname:	s47F
Email address:	s47F
Telephone number:	s47F
Address line 1:	Hangar 394 Ross Smith Avenue
Address line 2:	
City:	Mascot
State/Province/Region:	NSW
Postcode/ZIP:	2020
Country:	Australia

### d) Aircraft identification of the aeroplane operator for international flights (Item 7 of the flight plan)

Select the options planned to be used for reporting flight attribution to the aeroplane operator.

#### ICAO Designator

Does Item 7 (aircraft identification) of the flight plan begin with an ICAO Designator according to Doc 8585 — Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services? If yes, please select "ICAO Designator" from the drop down list and complete d2).

#### Registration marks

Does Item 7 (aircraft identification) of the flight plan correspond to the nationality or common mark, and registration mark, as explicitly stated in an AOC (or equivalent)? If yes, please select "Registration marks" from the drop down list and complete d3).

#### ICAO Designator and registration marks

Registration marks: nationality or common mark and registration mark as stated in an AOC (or equivalent)

### d1) Responsibility under the CORSIA

Aeroplane operator holding the AOC (or equivalent)

### d2) ICAO Designator

Provide the ICAO Designator (or Designators) used for Air Traffic Control purposes, as listed in Doc 8585 — Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services, if the aeroplane operator has an ICAO Designator(s).

**d3) List of registration marks**

Please list all aeroplanes including the nationality or common mark, and registration mark, of the aeroplane. If your fleet exceeds 30 registration marks, please attach a separate document to the EMP.

No.	Registration mark	No.	Registration mark	No.	Registration mark
1	s47F	11	s47F	21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	
9		19		29	
10		20		30	

**d4) Additional information on flight attribution**

Please provide additional information to support the approach followed for flight attribution.

Flights will be attributed where ExecuJet Australia is listed as the Operator. ExecuJet Australia will be nominated as the Operator on the Flight Plan. Aircraft registrations allocated to ExecuJet as Operator s47F

**e) Do you have an air operator certificate (AOC)?**

The air operator certificate (AOC) is a certificate authorizing an operator to carry out specified commercial air transport operations i.e., a document issued to an aeroplane operator by a Civil Aviation Authority which affirms that the aeroplane operator in question has the professional ability and organization to secure the safe operation of the aeroplane for the aviation activities specified in the certificate.

yes

**e1) Identification code of the AOC**

Please enter the unique identification number of the air operator certificate of the issuing Civil Aviation Authority. If you hold several AOCs, list the additional certificates in the field "Information about the certificate".

CASA.TAAOC.0118-24

**e2) Date of issue**

Please enter the date on which the air operator certificate was issued. Use the entry format yyyy-mm-dd.

2017-11-24

**e3) Date of expiry**

Please enter the date on which the air operator certificate expires (if applicable). Use the entry format yyyy-mm-dd.

2019-10-31

**e4) Competent authority for the AOC**

Please enter the address of the authority that issued the AOC.

Name of the authority:	Civil Aviation Safety Authority
Address line:	GPO Box 2005
City:	Canberra
State/Province/Region:	ACT
Postcode/ZIP:	2601
Country:	Australia

**e5) Information about the certificate**

Please give information about the scope of aviation activities the AOC permits to carry out. Are there any temporal, regional or other restrictions? Have any obligations been imposed?

Worldwide limited to 78 degrees North latitude and 60 degrees South latitude

**e6) Please attach the current versions of the AOCs covered in this Emissions Monitoring Plan; please confirm below**

yes

**f) Description of the ownership structure of your company**

*Details of ownership structure relative to any other aeroplane operators with international flights, including identification of whether the aeroplane operator is a parent company to other aeroplane operators with international flights, a subsidiary of another aeroplane operator (or operators) with international flights and/or has a parent and or subsidiaries that are aeroplane operators with international flights. Please describe the ownership structure of the operating company.*

Fully owned by the Luxaviation Group.

**f1) Parent-subsidiary relationship recognized as a single entity for the CORSIA administration?**

*Please specify whether the aeroplane operator is in a parent-subsidiary relationship which should be recognized as a single entity for the CORSIA administration?*

no

**f2) Name of the subsidiary company(ies)**

*If your company heads a group, please specify the names of the subsidiaries which also carry out international aviation activities and select how aircraft identification of the subsidiary for international flights is managed. Where appropriate, please attach additional explanatory files to the Emissions Monitoring Plan.*

Name of the subsidiary

Aircraft identification of the subsidiary for international flights  
(Item 7 of the flight plan)

**f3) Confirmation that parent and subsidiary(ies) are administered by the same State**

*If the aeroplane operator in a parent-subsidiary relationship seeks to be considered a single aeroplane operator for purposes of the CORSIA, confirm that the parent and subsidiary(ies) are subject to CORSIA administration by the same State.*

**f4) Confirmation that parent and subsidiary(ies) are wholly-owned by the parent**

*If the aeroplane operator in a parent-subsidiary relationship seeks to be considered a single aeroplane operator for purposes of the CORSIA, confirm that the subsidiary(ies) are wholly-owned by the parent.*

**f5) Additional information on the subsidiary(ies)**

*Step 1: On the basis of the provided information in f3), please specify the aircraft identification of the subsidiary(ies) for international flights (Item 7 of the flight plan) according to the same level of detail as requested in d) (e.g., state ICAO Designator or list registration marks). Please indicate how flights are assigned to the parent/subsidiary operation.*

*Step 2: Please specify whether there are any other items covered in this Emissions Monitoring Plan where the subsidiary(ies) deviate from the monitoring of the parent.*

*In case of insufficient space below, please attach additional documents to your Emissions Monitoring Plan submission.*

### g) Description of the aeroplane operator's activities

Please describe the aeroplane operator's activities. Provide details of main State pairs, typical leasing arrangements, scheduled/non-scheduled, pax/cargo/executive and geographic scope of operations.

Aircraft managed on behalf of aircraft owners. Aircraft Operated WorldWide under on demand charter and private operations. No scheduled flights are performed.

### h) Contact person

Please enter the contact information of the person within the aeroplane operator who is responsible for the Emissions Monitoring Plan.

Title:	s47F
First name:	s47F
Surname:	
Email address:	
Telephone number:	
Address line 1:	Hangar 394 Ross Smith Avenue
Address line 2:	
City:	Mascot
State/Province/Region:	NSW
Postcode/ZIP:	2020
Country:	Australia

### h1) Alternate contact person

Please enter the contact information of an additional person within the aeroplane operator who is responsible for the Emissions Monitoring Plan.

Title:	s47F
First name:	
Surname:	
Email address:	
Telephone number:	
Address line 1:	Hangar 394 Ross Smith Avenue
Address line 2:	
City:	Mascot
State/Province/Region:	NSW
Postcode/ZIP:	2020
Country:	Australia

### 3 FLEET AND OPERATIONS DATA

(Annex 16, Volume IV, Appendix 4, 2.2)

#### a) Fleet declaration

List all aeroplane types, including owned aeroplanes as well as leased aeroplanes, with an MTOM greater than 5 700 kg (12 566 lbs) operated on international flights, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 2, 2.1, at the time of submission of the Emissions Monitoring Plan as specified in Doc 8643 — Aircraft Type Designators.

Additional information about Doc 8643 — Aircraft Type Designators can be found at:

<http://www.icao.int/publications/DOC8643/Pages/Search.aspx>

No.	ICAO type designator	Fuel type	Number of aeroplanes
1	GLEX	Jet-A1	s47F
2	GL5T	Jet-A1	
3	GLF6	Jet-A1	
4	CL60	Jet-A1	
5	CL30	Jet-A1	
6	H25B	Jet-A1	
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No.	ICAO type designator	Fuel type	Number of aeroplanes
21			
22			
23			
24			
25			
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#### b) Additional aeroplane types

Will new aeroplane types always be monitored using the same methods as aeroplane types identified in section 4 of this plan?

yes
-----

**b1) Details about the procedure for defining the monitoring methodologies for additional aeroplane types**

*Define clearly the methods which are used for monitoring new aeroplane types that are not already in use.*

Responsible department

Description of procedure

Location of records

**c) Changes in aeroplane fleet and fuel type**

*Please provide information on the procedure for how changes in aeroplane fleet and fuel used will be tracked and integrated in emissions monitoring.*

Responsible department	Operations
Description of procedure	Aircraft will be added and removed based on change of Operator based on first flight under ExecuJet Australia and last flight under ExecuJet Australia as Operator. All Flight details for ExecuJet are saved to s47G which is used to manage all flights. The Operations Department will be responsible to keep the aircraft database up to date and distributing on an annual bases the emissions report. The Quality department will perform quality checks of the data and emissions reporting.
Location of records	Operations Department and electronic online s47G

**d) Completeness of all aeroplanes and all flights**

*Please provide information on the means that will be used to track/document each aeroplane operated and the specific flights of the aeroplane to ensure completeness of monitoring.*

Responsible department	Operations
Description of procedure	Flight Crew will record all flight data in the Aircraft Technical Log. This data will also be loaded by the crew to an electronic Tech log in s47G. The Operations department will verify the Tech log data and rectify potential errors. Any missing tech logs will be investigated and followed up by the Operations Department As all flights operated by ExecuJet are managed within the s47G system this will ensure that all data is captured and reported.
Location of records	Operations Department and electronic online s47F

**e) List of State pairs operated by the aeroplane operator**

*Please list all State pairs where international flights are currently operated. If applicable, please list State pairs from the State of origin to the State of destination (\*). If your State pairs exceed 50, please attach a separate document to the Emissions Monitoring Plan.  
(\*) For example, flights from State A to State B will require inserting a State pair A-B in the list; flights from State B to State A will require inserting a State pair B-A in the list.*

No.	State of origin	State of destination
1	World Wide Charter with no defined State pairs.	
2	See attached	
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**f) Determination of all international flights**

Please provide information on procedures for determining which aeroplane flights meet the definition of international flights for the purpose of Annex 16, Volume IV, and therefore are subject to the emissions monitoring requirements subject to applicability of Annex 16, Volume IV, Part II, Chapter 2, 2.1.

Responsible department	Operations
Description of procedure	All Flight Legs are recorded in s47G will then be used to extract the relevant flights per Annex16, Volume IV, for reporting purposes. For each flight s47G will be used to extract the corresponding States and State pairs and remove domestic flights in order to produce the emissions report. States will be identified on the basis of ICAO Doc 7910.
Location of records	Electronic in s47G (online aircraft management system)

**g) Determination of international flights with offsetting requirements**

Please provide information on the procedures for determining which international flights are subject to CO<sub>2</sub> offsetting requirements under the CORSIA as described in Annex 16, Volume IV, Part II, Chapter 3, 3.1.

Responsible department	Operations
Description of procedure	All Flight Legs are recorded in s47G will then be used to extract the relevant flights per Annex16, Volume IV, for reporting purposes. The tool will group flights by state pairs and exclude all domestic flights. For each airport the State and State pairs will be identified on the basis of ICAO document 7910 for reporting purposes.
Location of records	Electronic in s47G (online aircraft management system)

#### h) Determination of flights with no monitoring requirements

*If the aeroplane operator conducts any domestic flights and/or humanitarian, medical or firefighting international operations that would not be subject to the emissions monitoring requirements, information on the procedures for how those operations will be separated from those subject to the emissions monitoring requirements.*

Responsible department	Operations
Description of procedure	All Flight Legs are recorded in s47G will then be used to extract the relevant flights per Annex16, Volume IV, for reporting purposes. Flights including humanitarian, medical, firefighting, and international flights not included for CORSIA reporting requirements will be excluded based on filter criteria.
Location of records	Electronic in s47G online aircraft management system)

## 4 METHODS AND MEANS FOR CALCULATING EMISSIONS

(Annex 16, Volume IV, Appendix 4, 2.3)

### a) Fuel Use Monitoring Method and / or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)

Please specify whether the aeroplane operator plans to use one or more Fuel Use Monitoring Method(s) (as described in Annex 16, Volume IV, Appendix 2) and / or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) (as described in Annex 16, Volume IV, Appendix 3) for the 2019-2020 and 2021-2035 periods. When deciding on the monitoring method, consideration should be given to whether the aeroplane operator is eligible for the same method in the 2019-2020 period as in the 2021-2035 period.

For the reporting years 2019 and 2020 (in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.2.1.2)

- a Fuel Use Monitoring Method is mandatory for aeroplane operators with annual emissions equal to or above 500 000 tonnes of CO<sub>2</sub> from international flights, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2 and Chapter 2, 2.1.
- an aeroplane operator with annual CO<sub>2</sub> emissions from international flights, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2 and Chapter 2, 2.1 of less than 500 000 tonnes, shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).

For the reporting years 2021 until 2035 (in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.2.1.3)

- a Fuel Use Monitoring Method is mandatory for aeroplane operators with annual emissions equal to or above 50 000 tonnes of CO<sub>2</sub> from international flights subject to offsetting requirements, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 3, 3.1. For international flights not subject to offsetting requirements, the aeroplane operator shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).
- an aeroplane operator with annual emissions from international flights subject to offsetting requirements, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 3, 3.1, of less than 50 000 tonnes, shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).

#### ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)

#### a1) Option for simplified monitoring on routes not subject to offsetting requirements

Aeroplane operators which use a Fuel Use Monitoring Method (as described in Annex 16, Volume IV, Appendix 2) for the 2021-2035 period have an option for simplified monitoring with the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) (as described in Annex 16, Volume IV, Appendix 3) on State pairs not subject to offsetting requirements. Please specify whether the aeroplane operator intends to use this option.

no

#### b) Fuel Use Monitoring Methods

Please provide information on the use of different monitoring methods per sub-fleet (by ICAO aircraft type designator).

Monitoring method	Applicable for the following sub-fleets of aeroplanes (by ICAO aircraft type designator)	2019-2020 period	2021-2035 period
Method A			
Method B			
Block-off / Block-on			
Fuel Uplift			
Fuel Allocation with Block Hour			

**c) Simplified monitoring method**

Please provide information on use of the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).

2019-2020 period	2021-2035 period
yes	yes

**c1) Estimated annual CO<sub>2</sub> emissions**

Please demonstrate the eligibility to use the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) by providing an estimate of fuel use in order to calculate an estimate of the total CO<sub>2</sub> emissions for international flights, as defined in Annex 16, Volume IV, Part II, Chapter 2, 2.1. If the ICAO CORSIA CERT was used to estimate the CO<sub>2</sub> emissions, enter the information in the field "Estimate from the ICAO CORSIA CERT". For 2019, the estimate can be based on data within the 2017-2018 period or another appropriate period.

Fuel type	Annual fuel use (in tonnes)	Fuel conversion factor	Annual CO <sub>2</sub> emissions (in tonnes)
Jet-A		3.16	
Jet-A1	3100	3.16	9796
Jet-B		3.10	
AvGas		3.10	
Estimate from the ICAO CORSIA CERT			

**c2) Supporting information on estimation**

Provide supporting information on how the estimation of emissions in c1) has been determined, including on how fuel use has been estimated. In case the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) has been used, a copy of the tool has to be attached and the input method (i.e., Great Circle Distance or Block Time) has to be stated.

Estimate based upon fuel used calculated from Block off to Block on. Fuel used is recorded on the Aircraft Technical Log and captured to an electronic database which is used to calculate the annual fuel used and emissions. It is estimated that emissions will remain below 10,000 tonnes CO<sub>2</sub> emissions for 2019.

**c3) Input method for reporting**

Please specify for the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) whether Great Circle Distance or Block Time is used to estimate emissions for the reporting periods.

Block Time
------------

**d) Separation of parent-subsidiary related emissions in 2019-2020**

If the aeroplane operator is in a parent-subsidiary relationship and intends to be considered a single aeroplane operator for purposes of the CORSIA, identify the procedures that will be used for maintaining separate 2019-2020 fuel and emissions monitoring of the various corporate entities for the purpose of establishing individual 2019-2020 reference CO<sub>2</sub> emissions for the parent and subsidiary (or subsidiaries).

N/A. Individual reporting will be provided.

## 4.1 Fuel Use Monitoring Method: METHOD A

### a) Time of measurement and corresponding documentation for the chosen method

*Please specify the exact points in time for the three measurements necessary to calculate the fuel consumption per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A

---

### b) Fuel density for international flights

*Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel consumption for the CORSIA.*

N/A

## 4.2 Fuel Use Monitoring Method: METHOD B

### a) Time of measurement and corresponding documentation for the chosen method

*Please specify the exact points in time for the three measurements necessary to calculate the fuel consumption per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A

---

### b) Fuel density for international flights

*Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel consumption for the CORSIA.*

N/A

### 4.3 Fuel Use Monitoring Method: BLOCK-OFF / BLOCK-ON

#### a) Time of measurement and corresponding documentation for the chosen method

*Please specify the exact points in time for the two measurements necessary to calculate the fuel consumption per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A

## 4.4 Fuel Use Monitoring Method: FUEL UPLIFT

### a1) Measurement of the block hours (per flight) and corresponding documentation for the chosen method

*Please specify the exact points in time for the measurement of block hours per flight (necessary to calculate the fuel consumption per flight for international flights with zero uplift and for the following flight) and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A

### a2) Assignment and adjustment for flights with zero fuel uplift

*Please explain the data handling and calculations necessary to meet the adjustment requirement for flights with zero fuel uplift.*

N/A

---

### b) Fuel uplift

*Please specify which fuel uplift record will be used.*

N/A

---

### c) Fuel density for international flights

*Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel use for the CORSIA.*

N/A



## 4.5 Fuel Use Monitoring Method: FUEL ALLOCATION WITH BLOCK HOUR

### a) Option for calculating the specific fuel burn

Please choose from the options listed below and enter the ICAO type designators and the model for each option. Should one option for all aeroplane types be used, simply enter "all".

	Option	ICAO aircraft type designator / model
<input type="checkbox"/>	1 <sup>st</sup> Option for aeroplane operators which can clearly distinguish between fuel uplifts for international and domestic flights on a flight by flight basis. In case this option is selected, please also complete section 4.4 (Fuel uplift, a1 and a2), as this monitoring method is used to calculate the total fuel burn on international flights for a specific ICAO type designator or aircraft model.	
<input type="checkbox"/>	2 <sup>nd</sup> Option for aeroplane operators which cannot clearly distinguish between international and national fuel uplifts on a flight by flight basis.	

### b) Measurement of the block hours (per flight) and corresponding documentation for the chosen method

Please specify the exact points in time for the measurement of block hours per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.

N/A

### c) Fuel uplift

Please specify which fuel uplift record will be used.

N/A

### d) Fuel density for international flights

Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel use for the CORSIA.

N/A

## 4.6 ICAO CORSIA CO<sub>2</sub> ESTIMATION AND REPORTING TOOL (CERT)

(Annex 16, Volume IV, Appendix 3)

### a) Description of relevant input data

*Please specify whether Great Circle Distance and/or Block Time is used as input into the ICAO CORSIA CERT. If applicable, please specify the procedures for determining Block Time and potentially aggregating them to be used in the ICAO CORSIA CERT. This includes specifying the exact points in time for the two time measurements per flight necessary to calculate the Block Time.*

Block time will be used for the calculation of CORSIA CERT based on Blocks off to Blocks on time recorded by the crew. Block time is recorded on the Aircraft Technical Log and then data captured to s47G s47G e will be used for data collection, analysis and reporting.

## 5. DATA MANAGEMENT, DATA FLOW, CONTROL SYSTEM, RISK ANALYSIS AND DATA GAPS

(Annex 16, Volume IV, Appendix 4, 2.4)

### a) Description of data management

*Please provide a description of each step in the data flow and data processing, including controls to assure data quality, beginning with the source data up to the Emissions Report. Please reference the responsible departments. Please attach a data flow chart to the Emissions Monitoring Plan summarizing the systems used to record, store and control the quality of data associated with the monitoring and reporting of emissions.*

Data is recorded by the flight crew in the tech log. Flight Crew are responsible to capture the tech Log data to an electronic system, s47G after each trip. The Flight Operations Department will be responsible for data integrity checks and identify situations where data errors may have occurred. Operations will correct and data gaps. The Operations department will then be responsible to identify flights subject to CORSIA reporting and exclude other flights. The data will remain in an electronic database and compiled for annual emissions reporting.

### b) Threshold for data gaps

*If employing a Fuel Use Monitoring Method, please provide a description of the systems and procedures for identifying data gaps and for assessing whether the 5 per cent threshold for significant data gaps has been reached (in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.5.1).*

N/A

### b1) Description of available secondary sources

*Please specify data sources that can be alternatively used for reporting purposes.*

s47G requires that fuel uplift, departure and arrival fuel, flight times and block times are recorded as mandatory fields. The system therefore ensures that the crew captures this data in s47G. The Aircraft Tech Log and fuel receipts provide backup support and data sources for this information. The Flight Operations Department will ensure that all data is accurate and correct any data gaps monthly. At the end of each year, any flights affected by data gaps will be compared to the total number of international flights to assess whether the 5% threshold has been reached.

**b2) Handling of data gaps and erroneous data values**

*Aeroplane operators using a Fuel Use Monitoring Method shall use the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) to fill data gaps, in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.5.1, where the secondary data sources listed above are not available. For aeroplane operators not using a Fuel Use Monitoring Method, please provide a description of the method that will be used to fill data gaps in the event a secondary data reference source listed above is not available.*

The CERT tool will be used for all data reporting. The Aircraft Tech Logs are available as the source of all flight data.

**b3) Data gaps despite secondary sources**

*Does the existing data management system allow for data gaps when secondary data sources exist?*

no

**b4) Explanations of data gaps for which existing secondary sources cannot be used**

*Please describe the conditions (e.g., cost, time to resolve, data availability, data quality) under which this occurs.*

---

**c) Documentation and record keeping plan**

*Please specify where process directives are stored. Please indicate the IT system used, if applicable. List of applied data management and IT standards, where relevant.*

All Aircraft Technical Logs are stored on site at ExecuJet premises. Electronic data is stored securely in s47G with appropriate backups. All documents are stored electronically including the Aircraft Tech log and Fuel Receipts. All electronic documents will be stored on an ongoing basis and available for 10 years to demonstrate compliance. Archived Aircraft Tech Logs are stored offsite at dedicated ExecuJet archive stores facilities.

**d) Explanation of risks**

*Data management systems and controls are critical for ensuring data completeness, security, quality and minimizing the risk of a material error or misstatement in the emissions report. Please provide a list of the risks associated with the data management system and the corresponding internal or external control activity(ies) for addressing each.*

The primary risk remains data input and collection errors. We have however implemented measures to ensure data accuracy of the Tech Log and Fuel slips. All documents are stored electronically and backup up appropriately. The risk of data loss is very low with data backed up in the cloud and not stored in the same location as the paper tech log copies.

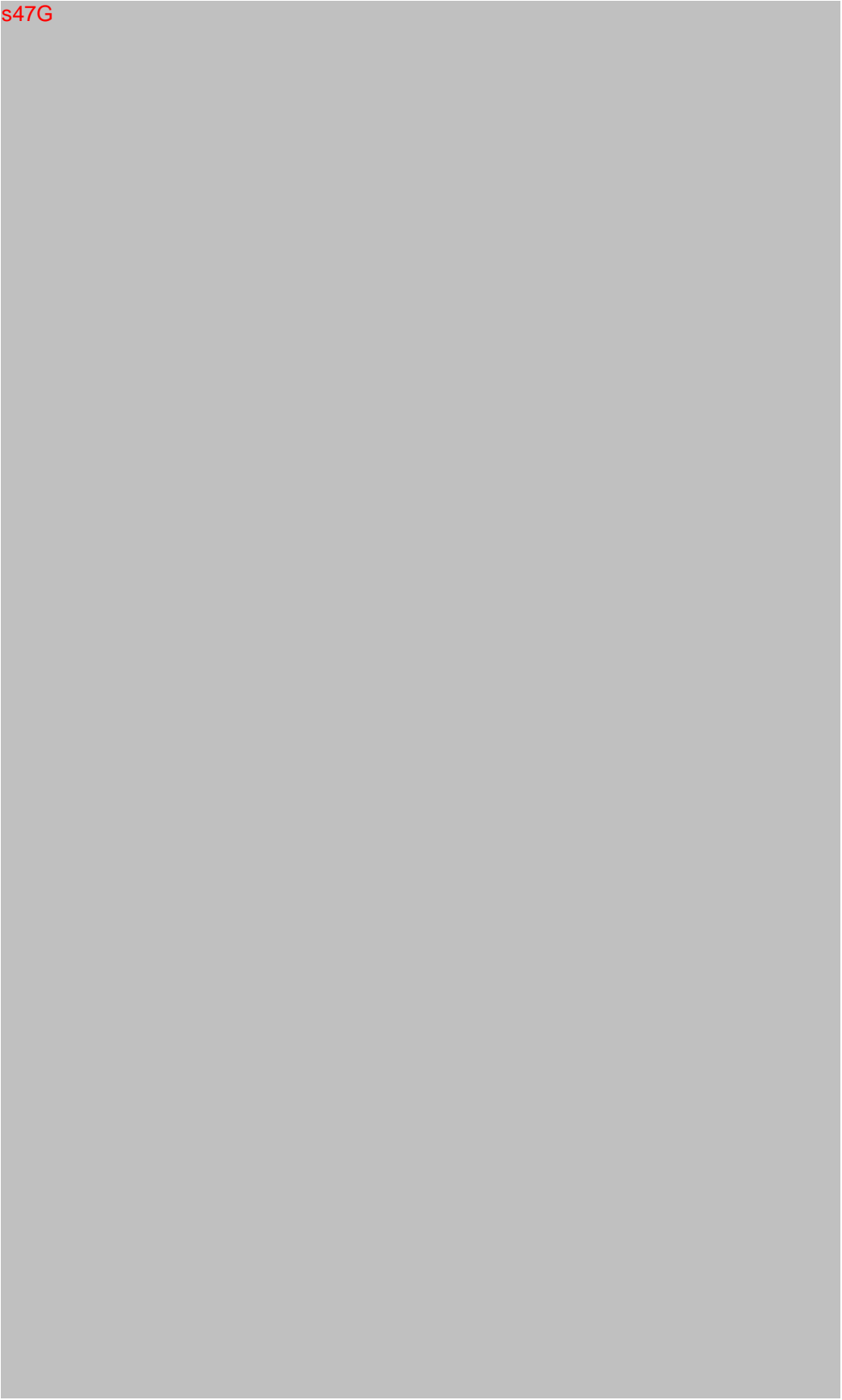
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**e) Revisions of Emissions Monitoring Plan**

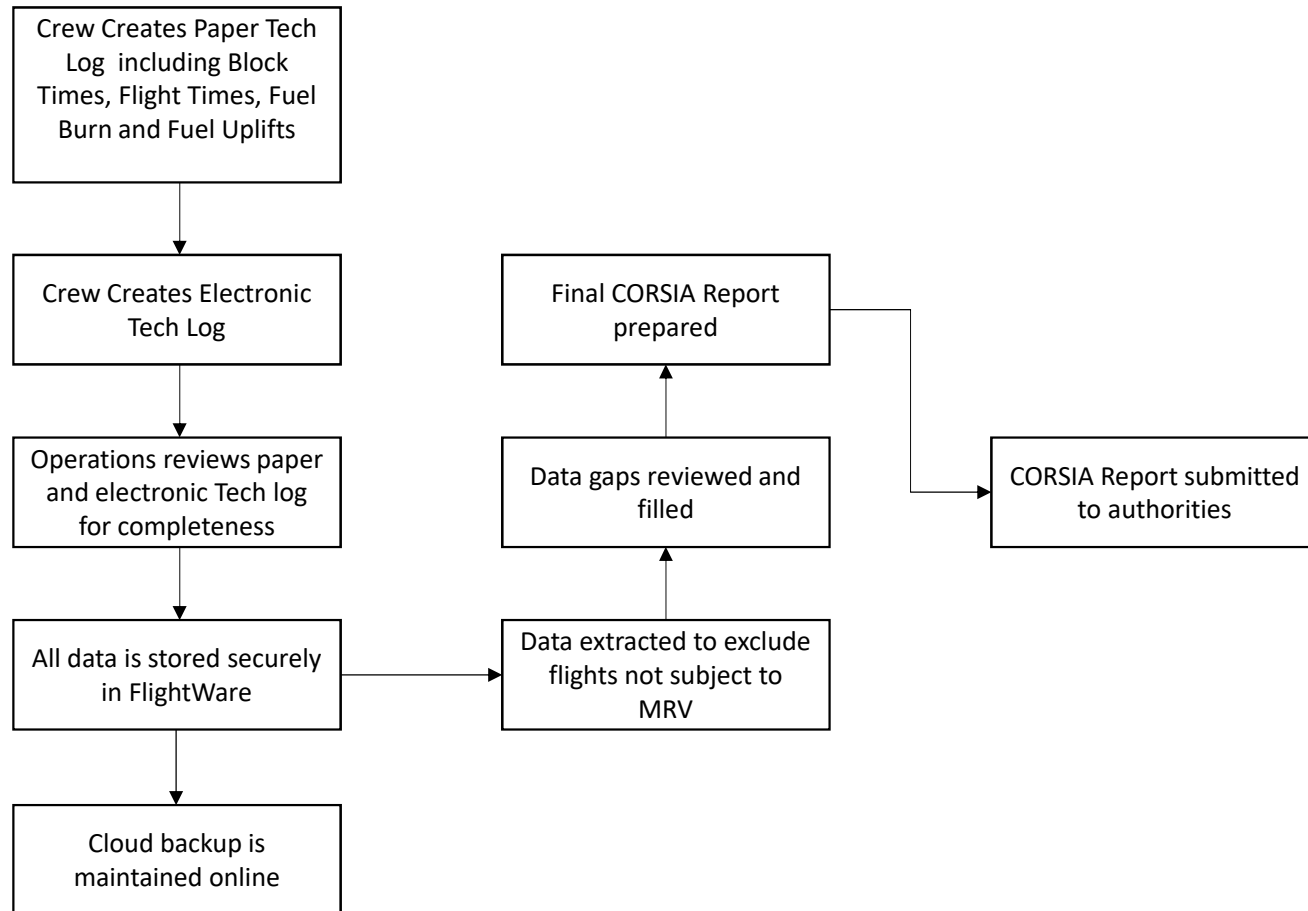
*Please provide information on procedures for identifying: i) material changes to the Emissions Monitoring Plan requiring revision and resubmission to the State and ii) non-material changes to the Emissions Monitoring Plan for disclosure in the Emissions Report.*

The Operations Department will maintain updated list of all aircraft operated by ExecuJet Australia and revise the monitoring plan accordingly. At present ExecuJet Australia is below the reporting threshold, however has prepared this plan for future use. Any changes to the system or process that may affect this plan will result in a revised plan being implemented. This plan will remain the responsibility of the Operations Department of ExecuJet Australia.





# EMP Monitoring Plan Flow





## AIR OPERATOR'S CERTIFICATE OPERATIONS SPECIFICATIONS

Civil Aviation Safety Authority  
GPO Box 2005, Canberra, ACT 2601, Australia  
**Telephone:** + (61) 131 757 **Fax:** + (61) 2 6217 1899 **Email:** regservices@casa.gov.au

### EXECUJET AUSTRALIA PTY LIMITED

ARN: 224736 ACN: 002 514 918

Phone: 02 9693 0800 Fax: 02 9693 0880 Email: darren.mcgoldrick@execujet.com.au  
Address (Postal): PO Box 205, MASCOT, NSW 1460

#### Schedule 1 Type of Operation: Regular Public Transport Operations

RESERVED

#### Schedule 2 Type of Operation: Charter Operations

##### Part 2.1.1

The certificate holder is authorised to operate the following Australian registered aircraft types and models in Charter operations in the territories indicated.

Manufacturer	Class/Type	Model	Passenger	Cargo	In Australia	Outside Australia	Into and Out of Australia
BEECH AIRCRAFT CORP	BE-200		✓	✓	✓	✓	✓
BOMBARDIER	BD-700	BD-700-1A10	✓	✓	✓	✓	✓
BOMBARDIER	BD-700	BD-700-1A11	✓	✓	✓	✓	✓
CANADAIR	CL600	CL600-2B16 (CL-604)	✓	✓	✓	✓	✓
CESSNA	500	500	✓	✓	✓	✓	✓
CESSNA	550	550	✓	✓	✓	✓	✓
CESSNA	560	560	✓	✓	✓	✓	✓
CESSNA	650	650	✓	✓	✓	✓	✓
GATES LEAR JET	35	35A	✓	✓	✓	✓	✓
GULFSTREAM	G-IV	G-IV	✓	✓	✓	✓	✓
LEARJET	45	45	✓	✓	✓	✓	✓
LEARJET	60	60	✓	✓	✓	✓	✓
RAYTHEON	BAe 125-800	HAWKER 800XP	✓	✓	✓	✓	✓

Authorised By: Dan Buric  
Team Leader  
Permissions Issue Team  
Client Services Centre  
Sustainability Group

s47F

Delegate, Civil Aviation Safety Authority

Operations Specifications No.: CASA.TAOS.0118-11  
Operations Specifications Reference Number: OS1512012  
Effective Date: 24 November 2017  
AOC No. CASA.TAAOC.0118-24  
AOC Expiry Date: 31 October 2019  
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# AIR OPERATOR'S CERTIFICATE OPERATIONS SPECIFICATIONS

## EXECUJET AUSTRALIA PTY LIMITED

ARN: 224736 ACN: 002 514 918

### Schedule 3 Type of Operation: Aerial Work Operations

#### Part 3.1.1

The certificate holder is authorised to operate the following Australian registered aircraft types and models in the Aerial Work operations specified in Part 3.1.2 in the territories indicated.

Manufacturer	Class/Type	Model	In Australia	Outside Australia	Into and Out of Australia
BEECH AIRCRAFT CORP	BE-200		✓	✓	✓
BOMBARDIER	BD-700	BD-700-1A10	✓	✓	✓
BOMBARDIER	BD-700	BD-700-1A11	✓	✓	✓
CANADAIR	CL600	CL600-2B16 (CL-604)	✓	✓	✓
CESSNA	500	500	✓	✓	✓
CESSNA	550	550	✓	✓	✓
CESSNA	560	560	✓	✓	✓
CESSNA	650	650	✓	✓	✓
GATES LEAR JET	35	35A	✓	✓	✓
GULFSTREAM	G-IV	G-IV	✓	✓	✓
LEARJET	45	45	✓	✓	✓
LEARJET	60	60	✓	✓	✓
RAYTHEON	BAe 125-800	HAWKER 800XP	✓	✓	✓

#### Part 3.1.2

Aerial Work Type	Aerial Work Details	In Australia	Outside Australia	Into and Out of Australia
AERIAL PHOTOGRAPHY	Media Operations	✓	✓	✓
	Still and Motion	✓	✓	✓
OTHER	Ambulance Functions	✓	✓	✓

Authorised By: Dan Buric  
Team Leader  
Permissions Issue Team  
Client Services Centre  
Sustainability Group

s47F

Operations Specifications No.: CASA.TAOS.0118-11  
Operations Specifications Reference Number: OS1512012  
Effective Date: 24 November 2017  
AOC No. CASA.TAAOC.0118-24  
AOC Expiry Date: 31 October 2019  
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Delegate, Civil Aviation Safety Authority

**AIR OPERATOR'S CERTIFICATE OPERATIONS SPECIFICATIONS**

**EXECUJET AUSTRALIA PTY LIMITED**

ARN: 224736 ACN: 002 514 918

Aerial Work Type	Aerial Work Details	In Australia	Outside Australia	Into and Out of Australia
	Search and Rescue	✓	✓	✓

**Schedule 4 Type of Operation: Flight Training Operations (Aircraft)**

RESERVED

**SERVICE PROVIDERS**

Approved CAR 217 Training and Checking Organisation : EXECUJET AUSTRALIA PTY LIMITED

**NOMINATED KEY PERSONNEL**

Chief Executive Officer (AOC)

Darren Paul MCGOLDRICK

**SPECIAL DESIGN FEATURES**

Operations in aeroplanes listed in schedules 1, 2 and 3, which incorporate the following special design features are authorised by this AOC as indicated:

1. Amphibious Operations - not permitted
2. Float Alighting Gear - not permitted
3. Floating Hull - not permitted
4. Pressurisation - permitted
5. Ski Landing Gear - not permitted

**DANGEROUS GOODS**

The Operator has been approved to accept and carry the dangerous goods permitted to be carried by passengers and crew in accordance with section 23 of the Civil Aviation Act 1988, Part 92 of the Civil Aviation Safety Regulations 1998 and the applicable Provisions for Dangerous Goods Carried by Passengers and Crew contained in the edition of the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air issued by the International Civil Aviation Organization that is valid at the time.

Authorised By: Dan Buric  
Team Leader  
Permissions Issue Team  
Client Services Centre  
Sustainability Group

s47F

Delegate, Civil Aviation Safety Authority

Operations Specifications No.: CASA.TAOS.0118-11  
Operations Specifications Reference Number: OS1512012  
Effective Date: 24 November 2017  
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AIR OPERATOR'S CERTIFICATE OPERATIONS SPECIFICATIONS

EXECUJET AUSTRALIA PTY LIMITED

ARN: 224736 ACN: 002 514 918

**Schedule 5 Conditions**

This AOC is subject to the following conditions imposed pursuant to section 28BB(1)(a) of the *Civil Aviation Act 1988*.

**Condition 1**

The Reference Number must be used when the Civil Aviation Regulations 1988, the Civil Aviation Safety Regulations 1998, or an instrument made under any of these regulations requires a CASA reference number to be included in a Form or other document, for the purpose of the regulations or the instrument.

Note: The Reference Number is the certificate holder's original or "legacy" reference number to be used and cited as it has previously been used or cited.

...End this Section...

**Condition 2**

**CONDITIONS RELATING TO INTERNATIONAL OPERATIONS**

1. THE FOREIGN TERRITORY WHERE FLIGHTS ARE AUTHORISED are defined by the smallest areas bounded by :

- (a) 78 degrees North latitude; and
- (b) 60 degrees South latitude.

...End this Section...

Authorised By: Dan Buric  
Team Leader  
Permissions Issue Team  
Client Services Centre  
Sustainability Group

s47F

Operations Specifications No.: CASA.TAOS.0118-11  
Operations Specifications Reference Number: OS1512012  
Effective Date: 24 November 2017  
AOC No. CASA.TAAOC.0118-24  
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Delegate, Civil Aviation Safety Authority

# CORSIA

## EMISSIONS MONITORING PLAN (EMP)

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- 2 [Aeroplane operator identification and description of activities](#)
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### Template Information

Template provided by:	s47F
Version (publication date):	2020-06-18

*Note: For the purpose of this template, international flight is defined as in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 2, 2.1.*

## 1 VERSION CONTROL OF EMISSIONS MONITORING PLAN

### a) Version No.

*Please enter version number of the current version.*

Version 1
-----------

### b) Version control

*If necessary, please fill in the table.*

Version No.	No. of previous version	Date of update	Emissions Monitoring Plan is valid from	Chapters where modifications have been made. Brief explanation of amendments.
1	Nil	2020-06-18	2019-01-01	Initial Draft Version 1

## 2 AEROPLANE OPERATOR IDENTIFICATION AND DESCRIPTION OF ACTIVITIES

(Annex 16, Volume IV, Appendix 4, 2.1)

### a) Name of the aeroplane operator

Please enter the name of the aeroplane operator. This name should be the legal entity engaged in the aeroplane operation, or the legal entity seeking to be the single entity for the CORSIA administration under a parent-subsidiary arrangement.

ExecuJet Australia Pty Ltd

### b) Address of the aeroplane operator

Please enter the address of the aeroplane operator.

Address line:	Hangar 394 Ross Smith Avenue
City:	Mascot
State/Province/Region:	NSW
Postcode/ZIP:	2020
Country:	Australia

### c) Legal representative

Please enter a contact address of a representative who is legally responsible for the aeroplane operator for official correspondence.

Title:	s47F
First name:	
Surname:	
Email address:	
Telephone number:	
Address line 1:	Hangar 394 Ross Smith Avenue
Address line 2:	
City:	Mascot
State/Province/Region:	NSW
Postcode/ZIP:	2020
Country:	Australia

### d) Aircraft identification of the aeroplane operator for international flights (Item 7 of the flight plan)

Select the options planned to be used for reporting flight attribution to the aeroplane operator.

#### ICAO Designator

Does Item 7 (aircraft identification) of the flight plan begin with an **ICAO Designator** according to Doc 8585 — Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services? If yes, please select "ICAO Designator" from the drop down list and complete d2).

#### Registration marks

Does Item 7 (aircraft identification) of the flight plan correspond to the **nationality or common mark, and registration mark**, as explicitly stated in an **AOC** (or equivalent)? If yes, please select "Registration marks" from the drop down list and complete d3).

#### ICAO Designator and registration marks

Registration marks: nationality or common mark and registration mark as stated in an AOC (or equivalent)

#### d1) Responsibility under the CORSIA

Aeroplane operator holding the AOC (or equivalent)

#### d2) ICAO Designator

Provide the ICAO Designator (or Designators) used for Air Traffic Control purposes, as listed in Doc 8585 — Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services, if the aeroplane operator has an ICAO Designator(s).



**d3) List of registration marks**

Please list all aeroplanes including the nationality or common mark, and registration mark, of the aeroplane. If your fleet exceeds 30 registration marks, please attach a separate document to the EMP.

No.	Registration mark	No.	Registration mark	No.	Registration mark
1	s47F	11	s47F	21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	
9		19		29	
10		20		30	

**d4) Additional information on flight attribution**

Please provide additional information to support the approach followed for flight attribution.

Flights will be attributed where ExecuJet Australia is the Operator of the aircraft. ExecuJet will be nominated on the Flight Plan as the operator.

**e) Do you have an air operator certificate (AOC)?**

The air operator certificate (AOC) is a certificate authorizing an operator to carry out specified commercial air transport operations i.e., a document issued to an aeroplane operator by a Civil Aviation Authority which affirms that the aeroplane operator in question has the professional ability and organization to secure the safe operation of the aeroplane for the aviation activities specified in the certificate.

yes

**e1) Identification code of the AOC**

Please enter the unique identification number of the air operator certificate of the issuing Civil Aviation Authority. If you hold several AOCs, list the additional certificates in the field "Information about the certificate".

CASA.TAAOC.0118-24

**e2) Date of issue**

Please enter the date on which the air operator certificate was issued. Use the entry format yyyy-mm-dd.

24/11/2017 and updated 21/05/2020

**e3) Date of expiry**

Please enter the date on which the air operator certificate expires (if applicable). Use the entry format yyyy-mm-dd.

2023-04-30

**e4) Competent authority for the AOC**

Please enter the address of the authority that issued the AOC.

Name of the authority:	Civil Aviation Safety Authority
Address line:	GPO Box 2005
City:	Canberra
State/Province/Region:	ACT
Postcode/ZIP:	2601
Country:	Australia

**e5) Information about the certificate**

Please give information about the scope of aviation activities the AOC permits to carry out. Are there any temporal, regional or other restrictions? Have any obligations been imposed?

Worldwide limited to 78 degrees North and 60 degrees South latitude.



**e6) Please attach the current versions of the AOCs covered in this Emissions Monitoring Plan; please confirm below**

yes

**f) Description of the ownership structure of your company**

*Details of ownership structure relative to any other aeroplane operators with international flights, including identification of whether the aeroplane operator is a parent company to other aeroplane operators with international flights, a subsidiary of another aeroplane operator (or operators) with international flights and/or has a parent and or subsidiaries that are aeroplane operators with international flights. Please describe the ownership structure of the operating company.*

Full owned by Luxaviation Group

**f1) Parent-subsidiary relationship recognized as a single entity for the CORSIA administration?**

*Please specify whether the aeroplane operator is in a parent-subsidiary relationship which should be recognized as a single entity for the CORSIA administration?*

no

## f2) Name of the subsidiary company(ies)

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name of the substance	short description of its suitability for internal use (yes = at the limit play)

**f3)** Confirmation that parent and subsidiary(ies) are administered by the same Slave

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**f4)** Confirmation that parent and subsidiary(ies) are wholly-owned by the parent.

https://doi.org/10.1016/j.jmb.2019.07.010

f5) Additional information on the subsidiary(ies):

**Q10:** I am going back to school soon and wondering if you have any suggestions for how to deal with my anxiety? I have been told to take medication, but I don't want to. I have also heard that therapy can help, but I'm not sure if it's worth it. Can you give me some advice?

Copyright © 2006 John Wiley & Sons, Ltd. *J. Forecast.* 25, 103–124 (2006)  
DOI: 10.1002/for

### g) Description of the aeroplane operator's activities

Please describe the aeroplane operator's activities. Provide details of main State pairs, typical leasing arrangements, scheduled/non-scheduled, pax/cargo/executive and geographic scope of operations.

Aircraft managed and operated on behalf of aircraft owner. Aircraft operated on both charter and private operations.

### h) Contact person

Please enter the contact information of the person within the aeroplane operator who is responsible for the Emissions Monitoring Plan.

Title:	Operations Director
First name:	s47F
Surname:	
Email address:	
Telephone number:	
Address line 1:	Hangar 394 Ross Smith Avenue
Address line 2:	
City:	Mascot
State/Province/Region:	NSW
Postcode/ZIP:	2020
Country:	Australia

### h1) Alternate contact person

Please enter the contact information of an additional person within the aeroplane operator who is responsible for the Emissions Monitoring Plan.

Title:	Quality Manager
First name:	s47F
Surname:	
Email address:	
Telephone number:	
Address line 1:	As above
Address line 2:	
City:	
State/Province/Region:	
Postcode/ZIP:	
Country:	

### 3 FLEET AND OPERATIONS DATA

(Annex 16, Volume IV, Appendix 4, 2.2)

#### a) Fleet declaration

List all aeroplane types, including owned aeroplanes as well as leased aeroplanes, with an MTOM greater than 5 700 kg (12 566 lbs) operated on international flights, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 2, 2.1, at the time of submission of the Emissions Monitoring Plan as specified in Doc 8643 — Aircraft Type Designators.

Additional information about Doc 8643 — Aircraft Type Designators can be found at:

<http://www.icao.int/publications/DOC8643/Pages/Search.aspx>

No.	ICAO type designator	Fuel type	Number of aeroplanes
1	GLEX	Jet-A1	s47F
2	GL5T	Jet-A1	
3	GLF6	Jet-A1	
4	CL60	Jet-A1	
5	CL30	Jet-A1	
6	H25B	Jet-A1	
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

No.	ICAO type designator	Fuel type	Number of aeroplanes
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

#### b) Additional aeroplane types

Will new aeroplane types always be monitored using the same methods as aeroplane types identified in section 4 of this plan?

yes



**b1) Details about the procedure for defining the monitoring methodologies for additional aeroplane types**

Define clearly the methods which are used for monitoring new aeroplane types that are not already in use.

Responsible department

Description of procedure

Location of records

**c) Changes in aeroplane fleet and fuel type**

Please provide information on the procedure for how changes in aeroplane fleet and fuel used will be tracked and integrated in emissions monitoring.

Responsible department	Operations
Description of procedure	Aircraft will be added and removed based on change of operator based on First flight and Last flight with ExecuJet as the Operator. All aircraft and trips are captured in ExecuJet's s47G The Operations team will keep the aircraft database up to date and schedule trips. The quality and CAMO team will review Tech Logs and data accuracy in s47G
Location of records	Operations Department and s47G

**d) Completeness of all aeroplanes and all flights**

Please provide information on the means that will be used to track/document each aeroplane operated and the specific flights of the aeroplane to ensure completeness of monitoring.

Responsible department	Operations
Description of procedure	Aircrew will record all operated flights in the aircraft tech log. This data is then loaded to an electronic tech log in s47G The Operations and CAMO department verify the accuracy of the tech log data in s47G Any missing detail or Tech logs are followed up and captured to ensure all data is captured.
Location of records	Operations Department and s47G

**e) List of State pairs operated by the aeroplane operator**

*Please list all State pairs where international flights are currently operated. If applicable, please list State pairs from the State of origin to the State of destination (\*). If your State pairs exceed 50, please attach a separate document to the Emissions Monitoring Plan.*

*(\*) For example, flights from State A to State B will require inserting a State pair A-B in the list; flights from State B to State A will require inserting a State pair B-A in the list.*

No.	State of origin	State of destination
1	World wide with no defined city pairs	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
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38		
39		
40		
41		
42		
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48		
49		
50		

**f) Determination of all international flights**

Please provide information on procedures for determining which aeroplane flights meet the definition of international flights for the purpose of Annex 16, Volume IV, and therefore are subject to the emissions monitoring requirements subject to applicability of Annex 16, Volume IV, Part II, Chapter 2, 2.1.

Responsible department	Operations Department
Description of procedure	All Flight Legs are recorded in s47G. This system is then used to extract all relevant international flights including country and airport pairs. Domestic flights will be removed for CORSIA reporting purposes.
Location of records	s47G

**g) Determination of international flights with offsetting requirements**

Please provide information on the procedures for determining which international flights are subject to CO<sub>2</sub> offsetting requirements under the CORSIA as described in Annex 16, Volume IV, Part II, Chapter 3, 3.1.

Responsible department	Operations Department
Description of procedure	Flights will be extracted to include country and airport pairs. Flights not attracting CO <sub>2</sub> offsetting requirements. The CERT Tool will then be used to validate the leg data for offsetting requirements and also used to calculate the emissions report.
Location of records	s47G

**h) Determination of flights with no monitoring requirements**

If the aeroplane operator conducts any domestic flights and/or humanitarian, medical or firefighting international operations that would not be subject to the emissions monitoring requirements, information on the procedures for how those operations will be separated from those subject to the emissions monitoring requirements.

Responsible department	Operations Department
Description of procedure	All Flight Leg data is recorded in s47G. Domestic and other flights with no monitoring requirements will be excluded from the s47G data for reporting purposes.
Location of records	s47G



## 4 METHODS AND MEANS FOR CALCULATING EMISSIONS

(Annex 16, Volume IV, Appendix 4, 2.3)

### a) Fuel Use Monitoring Method and / or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)

Please specify whether the aeroplane operator plans to use one or more Fuel Use Monitoring Method(s) (as described in Annex 16, Volume IV, Appendix 2) and / or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) (as described in Annex 16, Volume IV, Appendix 3) for the 2019-2020 and 2021-2035 periods. When deciding on the monitoring method, consideration should be given to whether the aeroplane operator is eligible for the same method in the 2019-2020 period as in the 2021-2035 period.

For the reporting years 2019 and 2020 (in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.2.1.2)

- a Fuel Use Monitoring Method is mandatory for aeroplane operators with annual emissions equal to or above 500 000 tonnes of CO<sub>2</sub> from international flights, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2 and Chapter 2, 2.1.
- an aeroplane operator with annual CO<sub>2</sub> emissions from international flights, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2 and Chapter 2, 2.1 of less than 500 000 tonnes, shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).

For the reporting years 2021 until 2035 (in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.2.1.3)

- a Fuel Use Monitoring Method is mandatory for aeroplane operators with annual emissions equal to or above 50 000 tonnes of CO<sub>2</sub> from international flights subject to offsetting requirements, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 3, 3.1. For international flights not subject to offsetting requirements, the aeroplane operator shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).
- an aeroplane operator with annual emissions from international flights subject to offsetting requirements, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 3, 3.1, of less than 50 000 tonnes, shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).

#### ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)

### a1) Option for simplified monitoring on routes not subject to offsetting requirements

Aeroplane operators which use a Fuel Use Monitoring Method (as described in Annex 16, Volume IV, Appendix 2) for the 2021-2035 period have an option for simplified monitoring with the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) (as described in Annex 16, Volume IV, Appendix 3) on State pairs not subject to offsetting requirements. Please specify whether the aeroplane operator intends to use this option.

Fuel Use Monitoring Method			
Method	2019-2020 period	2021-2035 period	ICAO CORSIA CO <sub>2</sub> Estimation and Reporting Tool (CERT)
Method 1			
Method 2			
Method 3			
Method 4			
Method 5			
Method 6			
Method 7			
Method 8			
Method 9			
Method 10			
Method 11			
Method 12			
Method 13			
Method 14			
Method 15			
Method 16			
Method 17			
Method 18			
Method 19			
Method 20			
Method 21			
Method 22			
Method 23			
Method 24			
Method 25			
Method 26			
Method 27			
Method 28			
Method 29			
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Method 31			
Method 32			
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Method 34			
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Method 44			
Method 45			
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Method 79			
Method 80			
Method 81			
Method 82			
Method 83			
Method 84			
Method 85			
Method 86			
Method 87			
Method 88			
Method 89			
Method 90			
Method 91			
Method 92			
Method 93			
Method 94			
Method 95			
Method 96			
Method 97			
Method 98			
Method 99			
Method 100			

### c) Simplified monitoring method

Please provide information on use of the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).

2019-2020 period	2021-2035 period
yes	yes

### c1) Estimated annual CO<sub>2</sub> emissions

Please demonstrate the eligibility to use the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) by providing an estimate of fuel use in order to calculate an estimate of the total CO<sub>2</sub> emissions for international flights, as defined in Annex 16, Volume IV, Part II, Chapter 2, 2.1. If the ICAO CORSIA CERT was used to estimate the CO<sub>2</sub> emissions, enter the information in the field "Estimate from the ICAO CORSIA CERT". For 2019, the estimate can be based on data within the 2017-2018 period or another appropriate period.

Fuel type	Annual fuel use (in tonnes)	Fuel conversion factor	Annual CO <sub>2</sub> emissions (in tonnes)
Jet-A		3.16	
Jet-A1	3100	3.16	9796
Jet-B		3.10	
AvGas		3.10	
Estimate from the ICAO CORSIA CERT			

**c2) Supporting information on estimation**

*Provide supporting information on how the estimation of emissions in c1) has been determined, including on how fuel use has been estimated. In case the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) has been used, a copy of the tool has to be attached and the input method (i.e., Great Circle Distance or Block Time) has to be stated.*

Estimate based on CERT Tool calculations for all ExecuJet Operated flights during the reporting period.

**c3) Input method for reporting**

*Please specify for the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) whether Great Circle Distance or Block Time is used to estimate emissions for the reporting periods.*

Block Time

**d) Separation of parent-subsidiary related emissions in 2019-2020**

*If the aeroplane operator is in a parent-subsidiary relationship and intends to be considered a single aeroplane operator for purposes of the CORSIA, identify the procedures that will be used for maintaining separate 2019-2020 fuel and emissions monitoring of the various corporate entities for the purpose of establishing individual 2019-2020 reference CO<sub>2</sub> emissions for the parent and subsidiary (or subsidiaries).*

N/A. Individual reporting will be provided.



## 4.1 Fuel Use Monitoring Method: METHOD A

### a) Time of measurement and corresponding documentation for the chosen method

*Please specify the exact points in time for the three measurements necessary to calculate the fuel consumption per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A

### b) Fuel density for international flights

*Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel consumption for the CORSIA.*

N/A

**4.2 Fuel Use Monitoring Method: METHOD B**

**a) Time of measurement and corresponding documentation for the chosen method**

*Please specify the exact points in time for the three measurements necessary to calculate the fuel consumption per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A
-----

**b) Fuel density for international flights**

*Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel consumption for the CORSIA.*

N/A
-----

#### 4.3 Fuel Use Monitoring Method: BLOCK-OFF / BLOCK-ON

**a) Time of measurement and corresponding documentation for the chosen method**

*Please specify the exact points in time for the two measurements necessary to calculate the fuel consumption per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A

## 4.4 Fuel Use Monitoring Method: FUEL UPLIFT

### a1) Measurement of the block hours (per flight) and corresponding documentation for the chosen method

*Please specify the exact points in time for the measurement of block hours per flight (necessary to calculate the fuel consumption per flight for international flights with zero uplift and for the following flight) and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A

### a2) Assignment and adjustment for flights with zero fuel uplift

*Please explain the data handling and calculations necessary to meet the adjustment requirement for flights with zero fuel uplift.*

N/A

### b) Fuel uplift

*Please specify which fuel uplift record will be used.*

### c) Fuel density for international flights

*Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel use for the CORSIA.*

## 4.5 Fuel Use Monitoring Method: FUEL ALLOCATION WITH BLOCK HOUR

### a) Option for calculating the specific fuel burn

Please choose from the options listed below and enter the ICAO type designators and the model for each option. Should one option for all aeroplane types be used, simply enter "all".

	Option	ICAO aircraft type designator / model
<input type="checkbox"/>	1 <sup>st</sup> Option for aeroplane operators which can clearly distinguish between fuel uplifts for international and domestic flights on a flight by flight basis. In case this option is selected, please also complete section 4.4 (Fuel uplift, a1 and a2), as this monitoring method is used to calculate the total fuel burn on international flights for a specific ICAO type designator or aircraft model.	
<input type="checkbox"/>	2 <sup>nd</sup> Option for aeroplane operators which cannot clearly distinguish between international and national fuel uplifts on a flight by flight basis.	

### b) Measurement of the block hours (per flight) and corresponding documentation for the chosen method

Please specify the exact points in time for the measurement of block hours per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.

N/A

### c) Fuel uplift

Please specify which fuel uplift record will be used.

N/A

### d) Fuel density for international flights

Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel use for the CORSIA.

N/A

## 4.6 ICAO CORSIA CO<sub>2</sub> ESTIMATION AND REPORTING TOOL (CERT)

(Annex 16, Volume IV, Appendix 3)

### a) Description of relevant input data

*Please specify whether Great Circle Distance and/or Block Time is used as input into the ICAO CORSIA CERT. If applicable, please specify the procedures for determining Block Time and potentially aggregating them to be used in the ICAO CORSIA CERT. This includes specifying the exact points in time for the two time measurements per flight necessary to calculate the Block Time.*

Block Time will be used for the calculation of CORSIA CERT. Block off and on time is recorded by the crew for each trip and is recorded on the Tech Log. The Tech Log Block time is then loaded to **s47G** and saved as an electronic Tech Log. The data can then be downloaded and used for data analysis and reporting.

## 5. DATA MANAGEMENT, DATA FLOW, CONTROL SYSTEM, RISK ANALYSIS AND DATA GAPS

(Annex 16, Volume IV, Appendix 4, 2.4)

### a) Description of data management

*Please provide a description of each step in the data flow and data processing, including controls to assure data quality, beginning with the source data up to the Emissions Report. Please reference the responsible departments. Please attach a data flow chart to the Emissions Monitoring Plan summarizing the systems used to record, store and control the quality of data associated with the monitoring and reporting of emissions.*

The Flight Crew record the trip details on the Tech Log. The crew then capture the data to an electronic Tech Log in s47G. The Flight Operations and CAMO departments perform data integrity checks. Any data gaps are corrected. Once the data is correct the CAMO team validate the Tech Log in s47G. The Operations Department then extracts the data excluding non reportable flights and prepares the data for inclusion into the CORSIA CERT Tool for reporting. The CERT Tool and supporting documents are then saved on ExecuJet's SharePoint site.

### b) Threshold for data gaps

*If employing a Fuel Use Monitoring Method, please provide a description of the systems and procedures for identifying data gaps and for assessing whether the 5 per cent threshold for significant data gaps has been reached (in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.5.1).*

N/A

### b1) Description of available secondary sources

*Please specify data sources that can be alternatively used for reporting purposes.*

The aircraft Tech Log and Fuel receipts can be used as a secondary data source. All fuel receipts and tech log data is saved to s47G to ensure access to the documents.



**b2) Handling of data gaps and erroneous data values**

*Aeroplane operators using a Fuel Use Monitoring Method shall use the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) to fill data gaps, in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.5.1, where the secondary data sources listed above are not available. For aeroplane operators not using a Fuel Use Monitoring Method, please provide a description of the method that will be used to fill data gaps in the event a secondary data reference source listed above is not available.*

The CERT Tool will be used to determine any data gaps. The aircraft Tech Logs are available as the initial source of all data.

**b3) Data gaps despite secondary sources**

*Does the existing data management system allow for data gaps when secondary data sources exist?*

no

**b4) Explanations of data gaps for which existing secondary sources cannot be used**

*Please describe the conditions (e.g., cost, time to resolve, data availability, data quality) under which this occurs.*

**c) Documentation and record keeping plan**

*Please specify where process directives are stored. Please indicate the IT system used, if applicable. List of applied data management and IT standards, where relevant.*

All Aircraft Tech Logs are saved by the CAMO department on site at ExecuJet's offices. Electronic data is stored in s47G . Any documents such as the CERT Tool and excel spreadsheets used for calculations will be saved in SharePoint which is securely managed and backed up.



**d) Explanation of risks**

*Data management systems and controls are critical for ensuring data completeness, security, quality and minimizing the risk of a material error or misstatement in the emissions report. Please provide a list of the risks associated with the data management system and the corresponding internal or external control activity(ies) for addressing each.*

The primary risk remains data input and data collection errors. A tech log validation process which is in place will reduce any risks associated with the capture of inaccurate data. All electronic data is backed up online to ensure redundant backup is in place. Scanned copies of the electronic documents are also available online.

**e) Revisions of Emissions Monitoring Plan**

*Please provide information on procedures for identifying: i) material changes to the Emissions Monitoring Plan requiring revision and resubmission to the State and ii) non-material changes to the Emissions Monitoring Plan for disclosure in the Emissions Report.*

The Operations department will be responsible for all revisions to the EMP and also submission of the CERT reporting. At the start of 2019 ExecuJet Australia estimated that we would be below the reporting threshold for CORSIA reporting however exceeded the threshold during the year. ExecuJet will manage the addition and removal of aircraft and flights operated by ExecuJet within the s47G system. Any changes to the EMP will be completed by the Operations Department and submitted for approval.

s22

**From:** s47F  
**Sent:** Monday, 29 June 2020 11:10 AM  
**To:** s22  
**Cc:**  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]  
**Attachments:** CORSIA EMP 2019 Ver 1 Updated.xlsx

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

H s22

Thanks for your guidance below. Please find attached an amended document as requested. Please advise if you need anything further.

Regards

s47F

**From:** s22 <[redacted]@infrastructure.gov.au>  
**Sent:** Friday, 26 June 2020 4:57 PM  
**To:** s47F  
**Cc:** A s22  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thank you for sending ExecuJet's updated EMP for review. We have a couple of minor suggestions before giving formal approval:

- Suggest that you update Section 3 part g) and h) to clarify the process for differentiating between flights with and without reporting/offsetting requirements. The text included in the original draft plan was clearer in this respect.
- Suggest that you update Section 4 part c1) with the updated emissions estimate of slightly over 10,000 tonnes, given that this is the basis on which monitoring/reporting is now required
- No concerns with leaving this as Version 1

We have no specific preference for the report to be based on State pairs or aerodrome pairs - happy to receive whichever is more convenient for your processes.

Once you send us a revised plan in line with the above suggestions, we will be able to finalise the approval pretty quickly.

Kind regards,

s22

A/g Assistant Director |  
 International Air Transport and  
 Trade



**Australian Government**  
**Department of Infrastructure, Transport,**  
**Regional Development and Communications**

s22

GPO Box 594, Canberra ACT 2601

*The department proudly acknowledges the Traditional Owners and Custodians of Australia, and their continuing connections to the land, waters and communities. We pay our respects to them and to their Elders past, present and emerging.*

## OFFICIAL

---

**From:** s47F  
**Sent:** Thursday, 18 June 2020 7:05 PM  
**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Cc:** s22 >  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22

I hope you and the department are all well.

We are preparing our Emissions report and have now attached an updated version of our EMP. Our original plan was not approved in 2019 as we expected to be below the threshold. I have left this the same in the plan but can update if you need as we are now over the threshold.

Please could this be reviewed and advise if any changes need to be made prior to approval. I have attached the original plan which we had submitted and have made a few amendments. I have left this at Version 1 as the original was never approved. Let me know if you want this done differently.

Also, can you advise if we need to report by state pair or aerodrome pairs?

Please let me know if you need further information.

s47F

---

**From:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Sent:** Friday, 27 March 2020 4:34 PM  
**To:** s47F  
**Cc:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

## OFFICIAL

Hi s47F

Thank you for your email.

We acknowledge your request for a suspension or delay of the CORSIA program, in light of the unprecedented challenges for the aviation industry as a result of the coronavirus outbreak. Given the impact of the virus, there will be work going in ICAO in the coming weeks/months on a range of issues relating to CORSIA including the baselines and timeframes, and we will certainly take ExecuJet's position on board and keep you in the loop as that work proceeds.

As an initial step, our Department is able to offer an extension on the due date for Australian airlines' verified 2019 emissions reports to **31 July 2020** (currently 31 May), while still allowing us to meet our national reporting deadline to ICAO. If there is a wider decision at the ICAO level to extend deadlines for airline and/or national reporting requirements, we will update you accordingly.

If you have any further queries at this stage, please let us know.

Kind regards,

s22

OFFICIAL

---

**From:** s47F  
**Sent:** Tuesday, 24 March 2020 10:36 PM  
**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Cc:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Dear s22

Whilst I have started to engage verifiers to complete the verification process of our submission I would like to request if a suspension or a delay to the CORSIA program can be considered as we all grapple with the impacts of the Corona Virus. Whilst we are not yet required to purchase carbon offsets the verification process has a rather significant cash outlay for which we would rather not proceed with at this time. The impacts of the Corona Virus to Australian businesses over the coming months will be significant and any cash savings opportunities need to be pursued to protect the industry, ExecuJet as an organization, and all of our employees over the long term. We therefore respectfully request that a program delay be considered.

I trust this proposal will be seriously considered and looking forward to a favourable response. I am available to discuss the above should it be necessary.

Regards

s47F

---

**From:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Sent:** Friday, 13 March 2020 12:47 PM  
**To:** s s47F  
**Cc:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F,

My apologies for the late notice, however would it be possible to reschedule our conversation until later this afternoon or Monday? We are currently dealing with some urgent matters in relation to coronavirus.

Kind regards,

s22

OFFICIAL

---

**From:** s47F  
**Sent:** Thursday, 12 March 2020 1:13 PM  
**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Cc:** s22  
**Subject:** Re: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Thanks s22

I will call you then.

Regards  
s47F

---

**From:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Sent:** Thursday, March 12, 2020 12:41:41 PM  
**To:** s47F  
**Cc:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Friday at 1300 is good for me - you can reach me on 02 6274 s47F

Kind regards,

s22

OFFICIAL

---

**From:** s47F  
**Sent:** Wednesday, 11 March 2020 6:09 PM  
**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22

That would be great. Could we make it Friday afternoon at 1300 if possible?

s47F

---

**From:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Sent:** Wednesday, 11 March 2020 5:46 PM  
**To:** s47F

Cc: s22 @infrastructure.gov.au>  
Subject: RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Happy to schedule a call for either Thursday afternoon or Friday this week. When would be most convenient for you?

Kind regards,

s22

A/g Assistant Director |  
International Air Transport and  
Trade  
Aviation Industry Policy | Aviation  
and Airports  
Department of Infrastructure,  
Transport, Regional Development  
and Communications



**Australian Government**

**Department of Infrastructure, Transport,  
Regional Development and Communications**

GPO Box 594, Canberra ACT 2601

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OFFICIAL

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From: Ds47F  
Sent: Tuesday, 10 March 2020 9:00 PM  
To: s22 @infrastructure.gov.au>  
Cc: s22 @infrastructure.gov.au>  
Subject: RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22

We are in contact with verifiers but wanted to see what our next steps are. Are we able to schedule a call this week.

Thanks  
s47F

---

From: s22 @infrastructure.gov.au>  
Sent: Friday, 6 March 2020 4:48 PM  
To: s47F  
Cc: s22 ninfrastructure.gov.au>  
Subject: RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thank you for your email. Please find attached the accredited verifiers list for your reference.

We will get back to you shortly with regard to the EMP/CERT and next steps.

Kind regards,

s22

A/g Assistant Director |  
International Air Transport and  
Trade  
Aviation Industry Policy | Aviation  
and Airports  
Department of Infrastructure,  
Transport, Regional Development  
and Communications

s22



**Australian Government**

**Department of Infrastructure, Transport,  
Regional Development and Communications**

GPO Box 594, Canberra ACT 2601

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OFFICIAL

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**From:** s47F >  
**Sent:** Thursday, 5 March 2020 4:01 PM  
**To:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Cc:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

Hi s22 and Team,

Please advise if you have been able to review the EMP and the CERT. Can you please send the accredited verifiers list through and advise what I need to do to finalize these reports.

Thanks  
s47F

---

**From:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Sent:** Tuesday, 3 March 2020 8:04 PM  
**To:** s47F  
**Cc:** s22 <[s22@infrastructure.gov.au](mailto:s22@infrastructure.gov.au)>  
**Subject:** RE: ExecuJet Australia CORSIA CERT [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Thanks for sending through (the email actually got caught in our filter for “offensive words” – don’t know what it was they picked up).

As mentioned, I'll get s22 (cc'd) to dust off the Emissions Monitoring Plan to ensure it meets our requirements.

Happy to send you a list of accredited verifiers but we won't be able to be so bold as to recommend anyone – sorry.

Regards,

s22

## OFFICIAL

---

**From:** s47F  
**Sent:** Friday, 28 February 2020 3:15 PM  
**To:** s22 @infrastructure.gov.au>  
**Subject:** ExecuJet Australia CORSIA CERT

Dear s22

Following our call yesterday please find attached our draft CORSIA CERT report. Included in the report are all Flights Operated by ExecuJet Australia for which we need to report on CORSIA. I do have a number of questions regarding the CERT and would appreciate some feedback and time next week to review so that this may be finalized. As it seems we will need to have the report verified please could you send me relevant details and possibly a recommendation.

Please also send relevant contact details for your office with whom I should deal with.

Regards

s47F



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# CORSIA

## EMISSIONS MONITORING PLAN (EMP)

### CONTENTS

- 1 [Version control of Emissions Monitoring Plan](#)
- 2 [Aeroplane operator identification and description of activities](#)
- 3 [Fleet and operations data](#)
- 4 [Methods and means for calculating emissions](#)
  - 4.1 [Fuel Use Monitoring Method: Method A](#)
  - 4.2 [Fuel Use Monitoring Method: Method B](#)
  - 4.3 [Fuel Use Monitoring Method: Block-off / Block-on](#)
  - 4.4 [Fuel Use Monitoring Method: Fuel Uplift](#)
  - 4.5 [Fuel Use Monitoring Method: Fuel Allocation with Block Hour](#)
  - 4.6 [ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool \(CERT\)](#)
- 5 [Data management, data flow, control system, risk analysis and data gaps](#)

### Template Information

Template provided by:	s47F
Version (publication date):	2020-06-18

*Note: For the purpose of this template, international flight is defined as in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 2, 2.1.*

## 1 VERSION CONTROL OF EMISSIONS MONITORING PLAN

### a) Version No.

Please enter version number of the current version.

Version 1
-----------

### b) Version control

If necessary, please fill in the table.

Version No.	No. of previous version	Date of update	Emissions Monitoring Plan is valid from	Chapters where modifications have been made. Brief explanation of amendments.
1	Nil	2020-06-29	2019-01-01	Initial Draft Version 1

## 2 AEROPLANE OPERATOR IDENTIFICATION AND DESCRIPTION OF ACTIVITIES

(Annex 16, Volume IV, Appendix 4, 2.1)

### a) Name of the aeroplane operator

Please enter the name of the aeroplane operator. This name should be the legal entity engaged in the aeroplane operation, or the legal entity seeking to be the single entity for the CORSIA administration under a parent-subsidiary arrangement.

ExecuJet Australia Pty Ltd

### b) Address of the aeroplane operator

Please enter the address of the aeroplane operator.

Address line:	Hangar 394 Ross Smith Avenue
City:	Mascot
State/Province/Region:	NSW
Postcode/ZIP:	2020
Country:	Australia

### c) Legal representative

Please enter a contact address of a representative who is legally responsible for the aeroplane operator for official correspondence.

Title:	Operations Director
First name:	s47F
Surname:	
Email address:	
Telephone number:	
Address line 1:	Hangar 394 Ross Smith Avenue
Address line 2:	
City:	Mascot
State/Province/Region:	NSW
Postcode/ZIP:	2020
Country:	Australia

### d) Aircraft identification of the aeroplane operator for international flights (Item 7 of the flight plan)

Select the options planned to be used for reporting flight attribution to the aeroplane operator.

#### ICAO Designator

Does Item 7 (aircraft identification) of the flight plan begin with an ICAO Designator according to Doc 8585 — Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services? If yes, please select "ICAO Designator" from the drop down list and complete d2).

#### Registration marks

Does Item 7 (aircraft identification) of the flight plan correspond to the **nationality or common mark, and registration mark**, as explicitly stated in an AOC (or equivalent)? If yes, please select "Registration marks" from the drop down list and complete d3).

#### ICAO Designator and registration marks

Registration marks: nationality or common mark and registration mark as stated in an AOC (or equivalent)

### d1) Responsibility under the CORSIA

Aeroplane operator holding the AOC (or equivalent)

### d2) ICAO Designator

Provide the ICAO Designator (or Designators) used for Air Traffic Control purposes, as listed in Doc 8585 — Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services, if the aeroplane operator has an ICAO Designator(s).

**d3) List of registration marks**

Please list all aeroplanes including the nationality or common mark, and registration mark, of the aeroplane. If your fleet exceeds 30 registration marks, please attach a separate document to the EMP.

No.	Registration mark	No.	Registration mark	No.	Registration mark
1	s47F	11	s47F	21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	
9		19		29	
10		20		30	

**d4) Additional information on flight attribution**

Please provide additional information to support the approach followed for flight attribution.

Flights will be attributed where ExecuJet Australia is the Operator of the aircraft. ExecuJet will be nominated on the Flight Plan as the operator.

**e) Do you have an air operator certificate (AOC)?**

The air operator certificate (AOC) is a certificate authorizing an operator to carry out specified commercial air transport operations i.e., a document issued to an aeroplane operator by a Civil Aviation Authority which affirms that the aeroplane operator in question has the professional ability and organization to secure the safe operation of the aeroplane for the aviation activities specified in the certificate.

yes

**e1) Identification code of the AOC**

Please enter the unique identification number of the air operator certificate of the issuing Civil Aviation Authority. If you hold several AOCs, list the additional certificates in the field "Information about the certificate".

CASA.TAAOC.0118-24

**e2) Date of issue**

Please enter the date on which the air operator certificate was issued. Use the entry format yyyy-mm-dd.

24/11/2017 and updated 21/05/2020

**e3) Date of expiry**

Please enter the date on which the air operator certificate expires (if applicable). Use the entry format yyyy-mm-dd.

2023-04-30

**e4) Competent authority for the AOC**

Please enter the address of the authority that issued the AOC.

Name of the authority:	Civil Aviation Safety Authority
Address line:	GPO Box 2005
City:	Canberra
State/Province/Region:	ACT
Postcode/ZIP:	2601
Country:	Australia

**e5) Information about the certificate**

Please give information about the scope of aviation activities the AOC permits to carry out. Are there any temporal, regional or other restrictions? Have any obligations been imposed?

Worldwide limited to 78 degrees North and 60 degrees South latitude.



**e6) Please attach the current versions of the AOCs covered in this Emissions Monitoring Plan; please confirm below**

yes

**f) Description of the ownership structure of your company**

*Details of ownership structure relative to any other aeroplane operators with international flights, including identification of whether the aeroplane operator is a parent company to other aeroplane operators with international flights, a subsidiary of another aeroplane operator (or operators) with international flights and/or has a parent and or subsidiaries that are aeroplane operators with international flights. Please describe the ownership structure of the operating company.*

Full owned by Luxaviation Group

**f1) Parent-subsidiary relationship recognized as a single entity for the CORSIA administration?**

Please specify whether the aeroplane operator is in a parent-subsidiary relationship which should be recognized as a single entity for the CORSIA administration?

no

**f2)** Name of the school \_\_\_\_\_

[illegible]

**f3)** Confirmation to a power and consistency of the results obtained by the other States

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

**f4)** Confirmation that parent with school age child is actively working the parent

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Journal compilation © 2006 Blackwell Publishing Ltd

**f5)** Administrative

NAME	DATE
ADDRESS	
CITY	
STATE	
ZIP	
TELEPHONE	
FAX	
E-MAIL	

### g) Description of the aeroplane operator's activities

Please describe the aeroplane operator's activities. Provide details of main State pairs, typical leasing arrangements, scheduled/non-scheduled, pax/cargo/executive and geographic scope of operations.

Aircraft managed and operated on behalf of aircraft owner. Aircraft operated on both charter and private operations.

### h) Contact person

Please enter the contact information of the person within the aeroplane operator who is responsible for the Emissions Monitoring Plan.

Title:	Operations Director
First name:	s47F
Surname:	
Email address:	
Telephone number:	
Address line 1:	Hangar 394 Ross Smith Avenue
Address line 2:	
City:	Mascot
State/Province/Region:	NSW
Postcode/ZIP:	2020
Country:	Australia

### h1) Alternate contact person

Please enter the contact information of an additional person within the aeroplane operator who is responsible for the Emissions Monitoring Plan.

Title:	Quality Manager
First name:	s47F
Surname:	
Email address:	
Telephone number:	
Address line 1:	As above
Address line 2:	
City:	
State/Province/Region:	
Postcode/ZIP:	
Country:	

### 3 FLEET AND OPERATIONS DATA

(Annex 16, Volume IV, Appendix 4, 2.2)

#### a) Fleet declaration

List all aeroplane types, including owned aeroplanes as well as leased aeroplanes, with an MTOM greater than 5 700 kg (12 566 lbs) operated on international flights, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 2, 2.1, at the time of submission of the Emissions Monitoring Plan as specified in Doc 8643 — Aircraft Type Designators.

Additional information about Doc 8643 — Aircraft Type Designators can be found at:

<http://www.icao.int/publications/DOC8643/Pages/Search.aspx>

No.	ICAO type designator	Fuel type	Number of aeroplanes
1	GLEX	Jet-A1	S4
2	GL5T	Jet-A1	7F
3	GLF6	Jet-A1	
4	CL60	Jet-A1	
5	CL30	Jet-A1	
6	H25B	Jet-A1	
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

No.	ICAO type designator	Fuel type	Number of aeroplanes
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

#### b) Additional aeroplane types

Will new aeroplane types always be monitored using the same methods as aeroplane types identified in section 4 of this plan?

yes
-----



**b1) Details about the procedure for defining the monitoring methodologies for additional aeroplane types**

Define clearly the methods which are used for monitoring new aeroplane types that are not already in use.

Responsible department:

Description of procedure:

Location of records:

**c) Changes in aeroplane fleet and fuel type**

Please provide information on the procedure for how changes in aeroplane fleet and fuel used will be tracked and integrated in emissions monitoring.

Responsible department	Operations
Description of procedure	Aircraft will be added and removed based on change of operator based on First flight and Last flight with ExecuJet as the Operator. All aircraft and trips are captured in ExecuJet's s47G The Operations team will keep the aircraft database up to date and schedule trips. The quality and CAMO team will review Tech Logs and data accuracy in s47G
Location of records	Operations Department and s47G

**d) Completeness of all aeroplanes and all flights**

Please provide information on the means that will be used to track/document each aeroplane operated and the specific flights of the aeroplane to ensure completeness of monitoring.

Responsible department	Operations
Description of procedure	Aircrew will record all operated flights in the aircraft tech log. This data is then loaded to an electronic tech log in s47G The Operations and CAMO department verify the accuracy of the tech log data in s47G. Any missing detail or Tech logs are followed up and captured to ensure all data is captured.
Location of records	Operations Department and s47G



**e) List of State pairs operated by the aeroplane operator**

Please list **all** State pairs where international flights are currently operated. If applicable, please list State pairs from the State of origin to the State of destination (\*). If your State pairs exceed 50, please attach a separate document to the Emissions Monitoring Plan.

(\*) For example, flights from State A to State B will require inserting a State pair A-B in the list; flights from State B to State A will require inserting a State pair B-A in the list.

No.	State of origin	State of destination
1	World wide with no defined city pairs	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
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37		
38		
39		
40		
41		
42		
43		
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48		
49		
50		

**f) Determination of all international flights**

Please provide information on procedures for determining which aeroplane flights meet the definition of international flights for the purpose of Annex 16, Volume IV, and therefore are subject to the emissions monitoring requirements subject to applicability of Annex 16, Volume IV, Part II, Chapter 2, 2.1.

Responsible department	Operations Department
Description of procedure	All Flight Legs are recorded in s47G This system is then used to extract all relevant international flights including country and airport pairs. Domestic flights will be removed for CORSIA reporting purposes.
Location of records	s47G

**g) Determination of international flights with offsetting requirements**

Please provide information on the procedures for determining which international flights are subject to CO<sub>2</sub> offsetting requirements under the CORSIA as described in Annex 16, Volume IV, Part II, Chapter 3, 3.1.

Responsible department	Operations Department
Description of procedure	All Flight Legs are recorded in s47G will then be used to extract the relevant flights per Annex16, Volume IV, for reporting purposes. The tool will group flights by airport and state pairs and exclude all domestic flights. For each airport the State and Airport pairs will be identified based on ICAO document 7910 for reporting purposes.. The CERT Tool will then be used to validate the leg data for offsetting requirements and also used to calculate the emissions report.
Location of records	s47G

**h) Determination of flights with no monitoring requirements**

If the aeroplane operator conducts any domestic flights and/or humanitarian, medical or firefighting international operations that would not be subject to the emissions monitoring requirements, information on the procedures for how those operations will be separated from those subject to the emissions monitoring requirements.

Responsible department	Operations Department
Description of procedure	All Flight Legs are recorded in s47G ill then be used to extract the relevant flights per Annex16, Volume IV, for reporting purposes. Flights including domestic, humanitarian, medical, firefighting, and international flights not included for CORSIA reporting requirements will be excluded based on filter criteria.
Location of records	s47G



## 4 METHODS AND MEANS FOR CALCULATING EMISSIONS

(Annex 16, Volume IV, Appendix 4, 2.3)

### a) Fuel Use Monitoring Method and / or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)

Please specify whether the aeroplane operator plans to use one or more Fuel Use Monitoring Method(s) (as described in Annex 16, Volume IV, Appendix 2) and / or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) (as described in Annex 16, Volume IV, Appendix 3) for the 2019-2020 and 2021-2035 periods. When deciding on the monitoring method, consideration should be given to whether the aeroplane operator is eligible for the same method in the 2019-2020 period as in the 2021-2035 period.

For the reporting years 2019 and 2020 (in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.2.1.2)

- a Fuel Use Monitoring Method is mandatory for aeroplane operators with annual emissions equal to or above 500 000 tonnes of CO<sub>2</sub> from international flights, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2 and Chapter 2, 2.1.
- an aeroplane operator with annual CO<sub>2</sub> emissions from international flights, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2 and Chapter 2, 2.1 of less than 500 000 tonnes, shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).

For the reporting years 2021 until 2035 (in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.2.1.3)

- a Fuel Use Monitoring Method is mandatory for aeroplane operators with annual emissions equal to or above 50 000 tonnes of CO<sub>2</sub> from international flights subject to offsetting requirements, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 3, 3.1. For international flights not subject to offsetting requirements, the aeroplane operator shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).
- an aeroplane operator with annual emissions from international flights subject to offsetting requirements, as defined in Annex 16, Volume IV, Part II, Chapter 1, 1.1.2, and Chapter 3, 3.1, of less than 50 000 tonnes, shall use either a Fuel Use Monitoring Method or the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).

#### ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)

### a1) Option for simplified monitoring on routes not subject to offsetting requirements

Aeroplane operators which use a Fuel Use Monitoring Method (as described in Annex 16, Volume IV, Appendix 2) for the 2021-2035 period have an option for simplified monitoring with the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) (as described in Annex 16, Volume IV, Appendix 3) on State pairs not subject to offsetting requirements. Please specify whether the aeroplane operator intends to use this option.

### b) Fuel Use Monitoring Method

Monitoring Method	2019-2020 period	2021-2035 period
Fuel Use Monitoring Method		
Fuel Use Monitoring Method		
Fuel Use Monitoring Method		
Fuel Use Monitoring Method		
Fuel Use Monitoring Method		
Fuel Use Monitoring Method		

### c) Simplified monitoring method

Please provide information on use of the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT).

2019-2020 period	2021-2035 period
yes	yes

### c1) Estimated annual CO<sub>2</sub> emissions

Please demonstrate the eligibility to use the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) by providing an estimate of fuel use in order to calculate an estimate of the total CO<sub>2</sub> emissions for international flights, as defined in Annex 16, Volume IV, Part II, Chapter 2, 2.1. If the ICAO CORSIA CERT was used to estimate the CO<sub>2</sub> emissions, enter the information in the field "Estimate from the ICAO CORSIA CERT". For 2019, the estimate can be based on data within the 2017-2018 period or another appropriate period.

Fuel type	Annual fuel use (in tonnes)	Fuel conversion factor	Annual CO <sub>2</sub> emissions (in tonnes)
Jet-A		3.16	
Jet-A1	3325	3.16	10507
Jet-B		3.10	
AvGas		3.10	
Estimate from the ICAO CORSIA CERT			

**c2) Supporting information on estimation**

*Provide supporting information on how the estimation of emissions in c1) has been determined, including on how fuel use has been estimated. In case the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) has been used, a copy of the tool has to be attached and the input method (i.e., Great Circle Distance or Block Time) has to be stated.*

Estimate based on CERT Tool calculations for all "ExecuJet Operated" flights during the reporting period.

**c3) Input method for reporting**

*Please specify for the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) whether Great Circle Distance or Block Time is used to estimate emissions for the reporting periods.*

Block Time

**d) Separation of parent-subsidiary related emissions in 2019-2020**

*If the aeroplane operator is in a parent-subsidiary relationship and intends to be considered a single aeroplane operator for purposes of the CORSIA, identify the procedures that will be used for maintaining separate 2019-2020 fuel and emissions monitoring of the various corporate entities for the purpose of establishing individual 2019-2020 reference CO<sub>2</sub> emissions for the parent and subsidiary (or subsidiaries).*

N/A. Individual reporting will be provided.

## 4.1 Fuel Use Monitoring Method: METHOD A

### a) Time of measurement and corresponding documentation for the chosen method

*Please specify the exact points in time for the three measurements necessary to calculate the fuel consumption per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A

### b) Fuel density for international flights

*Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel consumption for the CORSIA.*

N/A

## 4.2 Fuel Use Monitoring Method: METHOD B

### a) Time of measurement and corresponding documentation for the chosen method

*Please specify the exact points in time for the three measurements necessary to calculate the fuel consumption per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A

### b) Fuel density for international flights

*Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel consumption for the CORSIA.*

N/A

**4.3 Fuel Use Monitoring Method: BLOCK-OFF / BLOCK-ON**

**a) Time of measurement and corresponding documentation for the chosen method**

*Please specify the exact points in time for the two measurements necessary to calculate the fuel consumption per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A
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## 4.4 Fuel Use Monitoring Method: FUEL UPLIFT

### a1) Measurement of the block hours (per flight) and corresponding documentation for the chosen method

*Please specify the exact points in time for the measurement of block hours per flight (necessary to calculate the fuel consumption per flight for international flights with zero uplift and for the following flight) and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.*

N/A

### a2) Assignment and adjustment for flights with zero fuel uplift

*Please explain the data handling and calculations necessary to meet the adjustment requirement for flights with zero fuel uplift.*

N/A

### b) Fuel uplift

*Please specify which fuel uplift record will be used.*

### c) Fuel density for international flights

*Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel use for the CORSIA.*



## 4.5 Fuel Use Monitoring Method: FUEL ALLOCATION WITH BLOCK HOUR

### a) Option for calculating the specific fuel burn

Please choose from the options listed below and enter the ICAO type designators and the model for each option. Should one option for all aeroplane types be used, simply enter "all".

	Option	ICAO aircraft type designator / model
<input checked="" type="checkbox"/>	1 <sup>st</sup> Option for aeroplane operators which can clearly distinguish between fuel uplifts for international and domestic flights on a flight by flight basis. In case this option is selected, please also complete section 4.4 (Fuel uplift, a1 and a2), as this monitoring method is used to calculate the total fuel burn on international flights for a specific ICAO type designator or aircraft model.	
<input type="checkbox"/>	2 <sup>nd</sup> Option for aeroplane operators which cannot clearly distinguish between international and national fuel uplifts on a flight by flight basis.	

### b) Measurement of the block hours (per flight) and corresponding documentation for the chosen method

Please specify the exact points in time for the measurement of block hours per flight and outline the measurement equipment and procedures for recording, receiving, transmitting and storing of fuel data. Please provide a reference to the corresponding documentation.

N/A

### c) Fuel uplift

Please specify which fuel uplift record will be used.

N/A

### d) Fuel density for international flights

Please provide information on the procedures for determining and recording fuel density values (standard or actual) as used for operational and safety reasons and provide reference to the relevant internal documentation. These procedures shall be applied when calculating the fuel use for the CORSIA.

N/A

## 4.6 ICAO CORSIA CO<sub>2</sub> ESTIMATION AND REPORTING TOOL (CERT)

(Annex 16, Volume IV, Appendix 3)

### a) Description of relevant input data

*Please specify whether Great Circle Distance and/or Block Time is used as input into the ICAO CORSIA CERT. If applicable, please specify the procedures for determining Block Time and potentially aggregating them to be used in the ICAO CORSIA CERT. This includes specifying the exact points in time for the two time measurements per flight necessary to calculate the Block Time.*

Block Time will be used for the calculation of CORSIA CERT. Block off and on time is recorded by the crew for each trip and is recorded on the Tech Log. The Tech Log Block time is then loaded to **s47G** and saved as an electronic Tech Log. The data can then be downloaded and used for data analysis and reporting.

## 5. DATA MANAGEMENT, DATA FLOW, CONTROL SYSTEM, RISK ANALYSIS AND DATA GAPS

(Annex 16, Volume IV, Appendix 4, 2.4)

### a) Description of data management

*Please provide a description of each step in the data flow and data processing, including controls to assure data quality, beginning with the source data up to the Emissions Report. Please reference the responsible departments. Please attach a data flow chart to the Emissions Monitoring Plan summarizing the systems used to record, store and control the quality of data associated with the monitoring and reporting of emissions.*

s47G The Flight Crew record the trip details on the Tech Log. The crew then capture the data to an electronic Tech Log in s47G The Flight Operations and CAMO departments perform data integrity checks. Any data gaps are corrected. Once the data is correct the CAMO team validate the Tech Log in s47G The Operations Department then extracts the data excluding non reportable flights and prepares the data for inclusion into the CORSIA CERT Tool for reporting. The CERT Tool and supporting documents are then saved on ExecuJet's SharePoint site.

### b) Threshold for data gaps

*If employing a Fuel Use Monitoring Method, please provide a description of the systems and procedures for identifying data gaps and for assessing whether the 5 per cent threshold for significant data gaps has been reached (in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.5.1).*

N/A

### b1) Description of available secondary sources

*Please specify data sources that can be alternatively used for reporting purposes.*

The aircraft Tech Log and Fuel receipts can be used as a secondary data source. All fuel receipts and tech log data is saved to s47G ensure access to the documents.

**b2) Handling of data gaps and erroneous data values**

*Aeroplane operators using a Fuel Use Monitoring Method shall use the ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT) to fill data gaps, in accordance with Annex 16, Volume IV, Part II, Chapter 2, 2.5.1, where the secondary data sources listed above are not available. For aeroplane operators not using a Fuel Use Monitoring Method, please provide a description of the method that will be used to fill data gaps in the event a secondary data reference source listed above is not available.*

The CERT Tool will be used to determine any data gaps. The aircraft Tech Logs are available as the initial source of all data.

**b3) Data gaps despite secondary sources**

*Does the existing data management system allow for data gaps when secondary data sources exist?*

no

**b4) Explanations of data gaps for which existing secondary sources cannot be used**

*Please describe the conditions (e.g., cost, time to resolve, data availability, data quality) under which this occurs.*

**c) Documentation and record keeping plan**

*Please specify where process directives are stored. Please indicate the IT system used, if applicable. List of applied data management and IT standards, where relevant.*

All Aircraft Tech Logs are saved by the CAMO department on site at ExecuJet's offices. Electronic data is stored in  
s47G Any documents such as the CERT Tool and excel spreadsheets used for calculations will be saved in SharePoint which is securely managed and backed up.

#### d) Explanation of risks

*Data management systems and controls are critical for ensuring data completeness, security, quality and minimizing the risk of a material error or misstatement in the emissions report. Please provide a list of the risks associated with the data management system and the corresponding internal or external control activity(ies) for addressing each.*

The primary risk remains data input and data collection errors. A tech log validation process which is in place will reduce any risks associated with the capture of inaccurate data. All electronic data is backed up online to ensure redundant backup is in place. Scanned copies of the electronic documents are also available online.

#### e) Revisions of Emissions Monitoring Plan

*Please provide information on procedures for identifying: i) material changes to the Emissions Monitoring Plan requiring revision and resubmission to the State and ii) non-material changes to the Emissions Monitoring Plan for disclosure in the Emissions Report.*

The Operations department will be responsible for all revisions to the EMP and also submission of the CERT reporting. At the start of 2019 ExecuJet Australia estimated that we would be below the reporting threshold for CORSIA reporting however exceeded the threshold during the year. ExecuJet will manage the addition and removal of aircraft and flights operated by ExecuJet within the s47G. Any changes to the EMP will be completed by the Operations Department and submitted for approval.



s22

**From:** s47F @qantas.com.au>  
**Sent:** Thursday, 2 July 2020 1:20 PM  
**To:** s22  
**Subject:** RE: CORSIA baseline

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Me again! Just realised I'd misread the decision and that it will only apply to the voluntary period. What was the feedback on it applying to the whole scheme?

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**From:** s47F  
**Sent:** Thursday, 2 July 2020 9:02 AM  
**To:** s22 @infrastructure.gov.au>; s22 infrastructure.gov.au>  
**Subject:** CORSIA baseline

Hi s22

Great news on the baseline overnight - thanks for your work on the Australian position and getting this across the line!

Hope you're both well.

Cheers

s47F

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