



EASA

European Aviation Safety Agency



EUROPEAN UNION

CORSIA Implementation in THAILAND EASA's support on CORSIA implementation: EMP and MRV system

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CORSIA IN THAILAND

1) 28.09.2016-ICAO ASSEMBLY 39°-statement of the Ministry of Transport

«Thailand is fully committed to join CORSIA on the basis of voluntary participation for its pilot phase in 2021»

2) CAAT (i.e. under EU project) has been training sector stakeholders on CORSIA implementation since September 2017

3) CAAT (i.e. under EU project) organized an MRV workshop in November 2017



CORSIA IN THAILAND

- 4) CAAT drafted an MRV exercise
- 5) CAAT with AIRBUS organized a workshop on CORSIA in May 2018
- 6) After the adoption of SARPs (27.06.2018), CAAT shared the EMP template with sector stakeholders
- 7) CAAT organized a workshop on EMP on 01.10.2018
- 8) CAAT has drafted MRV legal framework
- 9) This WORKSHOP is another..... step of CORSIA implementation in Thailand



WHY IS MRV SO IMPORTANT FOR CORSIA?

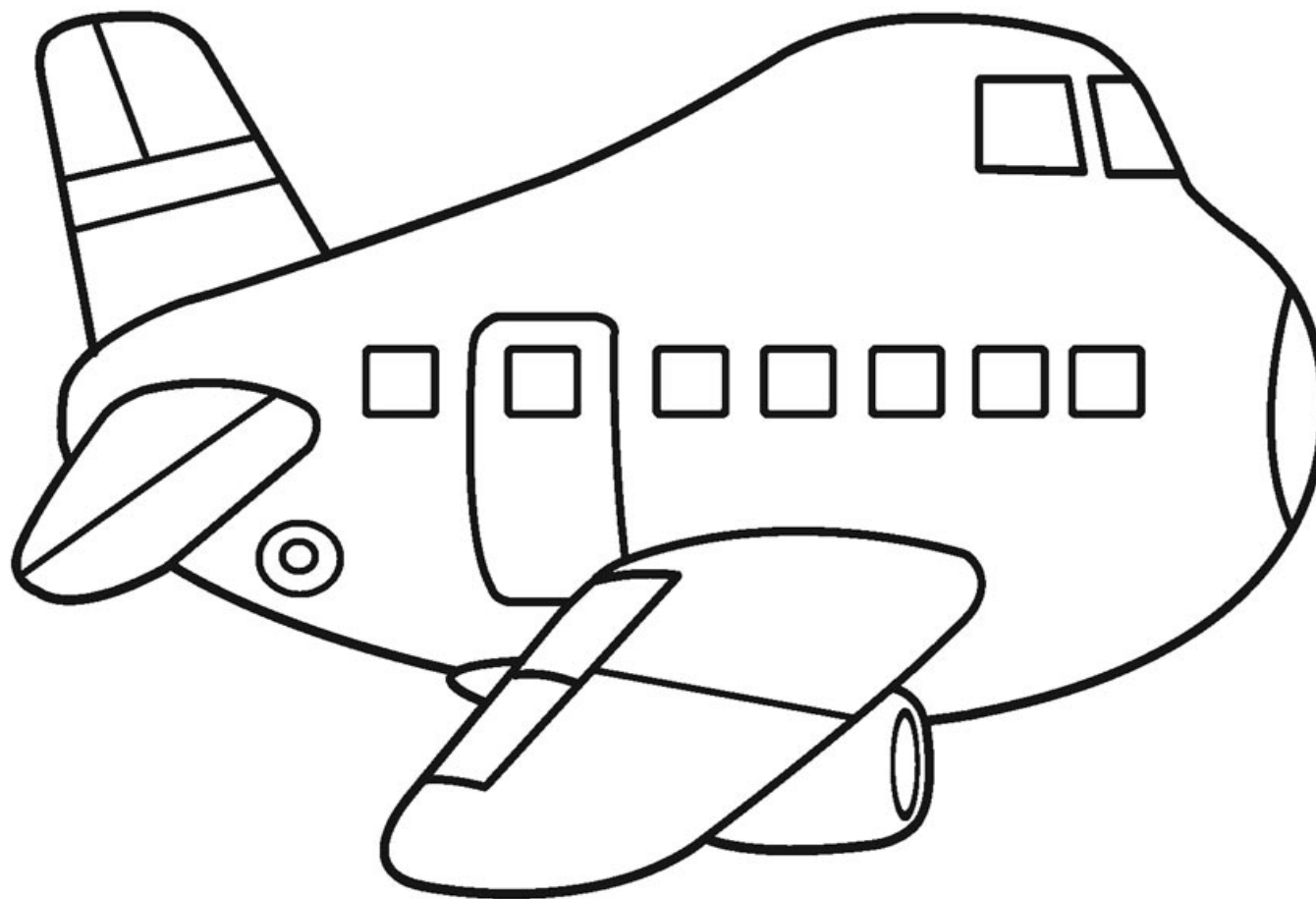
It is the
backbone for CORSIA
implementation.

Data reported by States will
be used to calculate CORSIA
baseline: it will be the average
of 2019 and 2020 emissions

Data reported by States will be the basis to
calculate the aeroplane's operator offsetting
requirements



MRV APPLICABILITY UNDER CORSIA



COOL2BKIDS.COM



Paragraph 20, Assembly Resolution A39-3:

All States whose aircraft operator undertakes international flights need to develop a monitoring, reporting and verification (MRV) system for CO₂ emissions from international flights starting from 1 January 2019.



MRV REQUIREMENTS



Not all aeroplane operators shall MRV



MRV REQUIREMENTS: annex 16, vol.4, part 2, chapter 2, 2.1

- ❖ From the use of an aeroplane with a maximum certificated take-off mass of greater than 5,700 kg
- ❖ Conducting international operations on or after 1 January 2019
- ❖ With the exception of:
 - Humanitarian,
 - medical and
 - firefighting operations
- ❖ An operator that produces annual CO₂ emissions greater than 10,000 tonnes



MRV COMPONENT



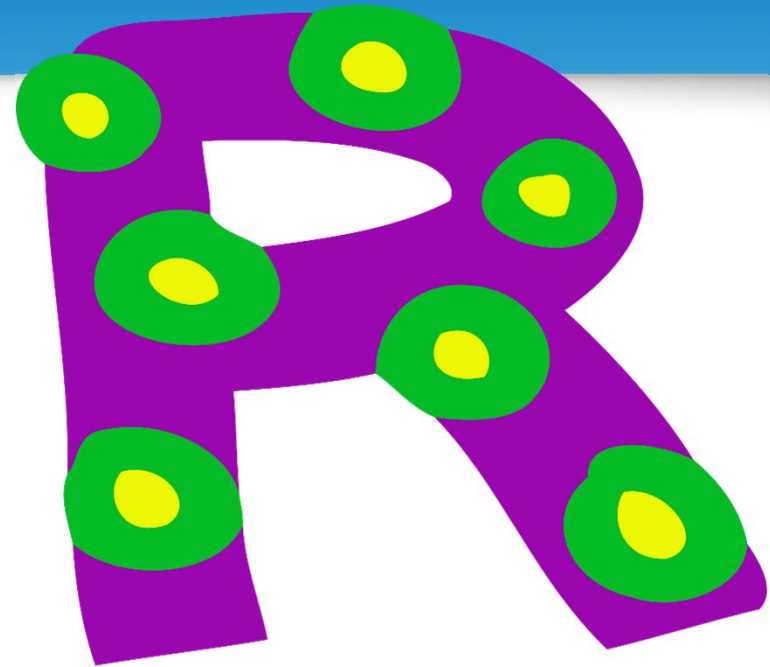
Monitoring of CO₂ emissions, based on

- 1) a Fuel Use Monitoring Method,
- 2) or the use of the ICAO CORSIA CERT.

For the former, each operator has to collect accurate information on the fuel use for each flight and calculate CO₂ emissions by multiplying the amount of fuel used with a conversion factor representing the amount of tonnes of CO₂ produced per tonne of fuel.



MRV COMPONENT: R

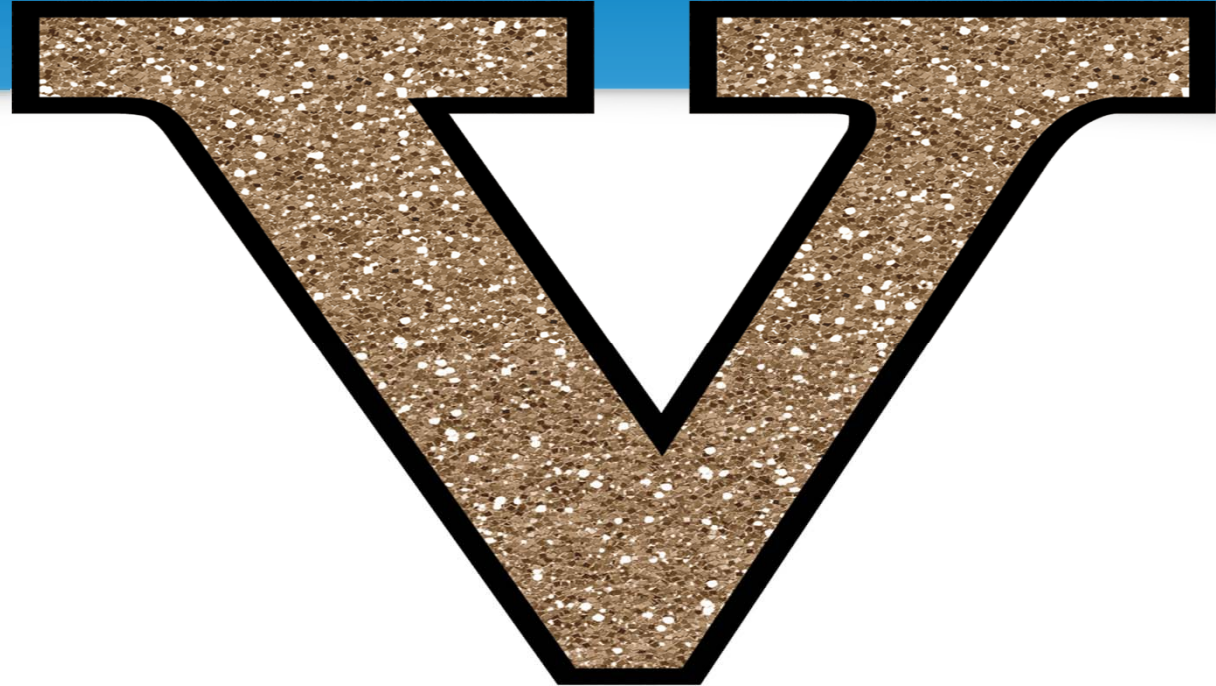


1) After monitoring and calculating CO₂ emissions, aeroplane operators WILL REPORT information to CAAT, and CAAT to ICAO, by using harmonized templates and procedures.

2) ICAO consolidates the CO₂ emissions data, calculates the annual sectoral growth factor, and communicates the growth factor to States.



MRV COMPONENT: V



To ensure that the data is accurate and free of errors. The verification will be on:

- amount of CO2 emissions from international flights;
- later purchase, cancellation and confirmation of the single use of eligible emissions units



Three different levels of verification

Pre internal verification by the
aeroplane operator

Verification by a third Party:
verification body accredited to
ISO 14065:2013

State Authority/CAAT:
magnitude check control before
sharing aggregated data to ICAO



VERIFICATION: 4 steps to get the verification result. THE FIRST STEP

THE FIRST STEP

Operators HAVE TO DO PRE INTERNAL VERIFICATION of the EMISSIONS REPORT prior to send to the third party verifier. It is a voluntary step but it serves to ensure there are no big mistakes, gaps, errors in line with practices on this regard



THE SECOND STEP

THE SECOND STEP PLAYERS

Operators have to engage and accredited verification body to verify the ER (the accredited verification body shall work in compliance with ISO 14065:2013)



THE THIRD STEP



Accredited verifiers verify the ER and after approval from the operator, accredited verifiers share the ER with CAAT. Operator will share the verified ER with CAAT as well



THE FOURTH STEP



CAAT will receive 2 copies of the same document but CAAT will look at them as one package.

CAAT is requested to perform an order of magnitude check to assess the completeness of data based on CAAT's knowledge of operators' activities.



ADDITIONAL INFO TO BE FIXED





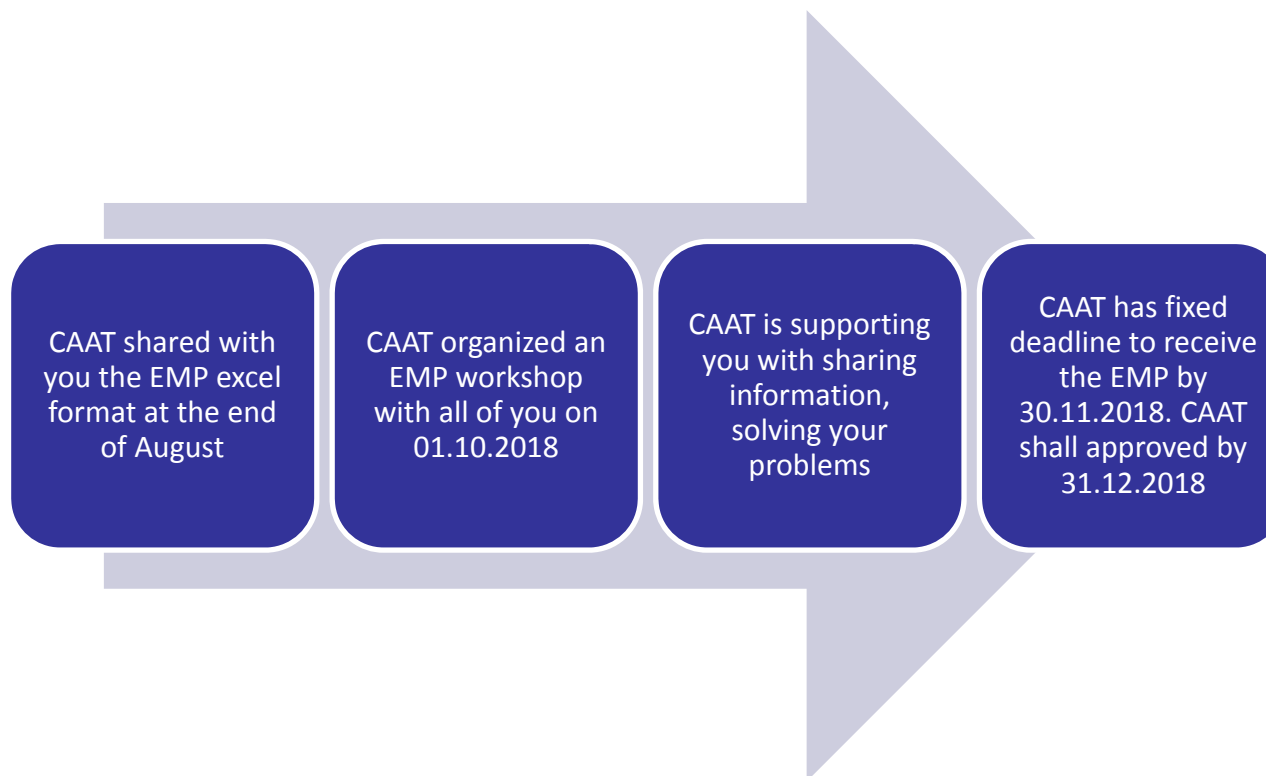
SOME MORE WORDS ON VERIFICATION

- ❖ Nothing new, you are already familiar with. Similar to audit and for those working with EU ETS is very similar
- ❖ There will not be a specific TEMPLATE FOR VERIFIERS as ISO standards will apply and are already well- known to the GHG verifier word
- ❖ SARPs are flexible in terms of verification body to be chosen even if there are some requirements to be fulfilled at level of nations (like for example: the verification body shall be included into the list of verification bodies accredited in the state, included within the ICAO document entitled CORSIA central registry information and data for transparency to be sent by CAAT to ICAO by 30.04.2019)
- ❖ The National accreditation body shall be working in accordance with ISO/IEC 17011 (conformity assessment- general requirements for accreditation)



MRV BEGINNING

MRV starts with the EMISSION MONITORING PLAN





EMP Annex 16, Volume IV, Part II, Chapter 2, 2.2.2 and Appendix 4

MAIN COMPONENTS OF THE EMP:

1) Aeroplane operator identification

2) Fleet and operations data

3) Methods and means for calculating emissions from international flights

4) Data management, data flow and control

Details of each main component were explained during CAAT workshop on 01.10.2018





EMP WORKSHOP 01.10.2018





EMP WORKSHOP 01.10.2018





EMP WORKSHOP RESULTS



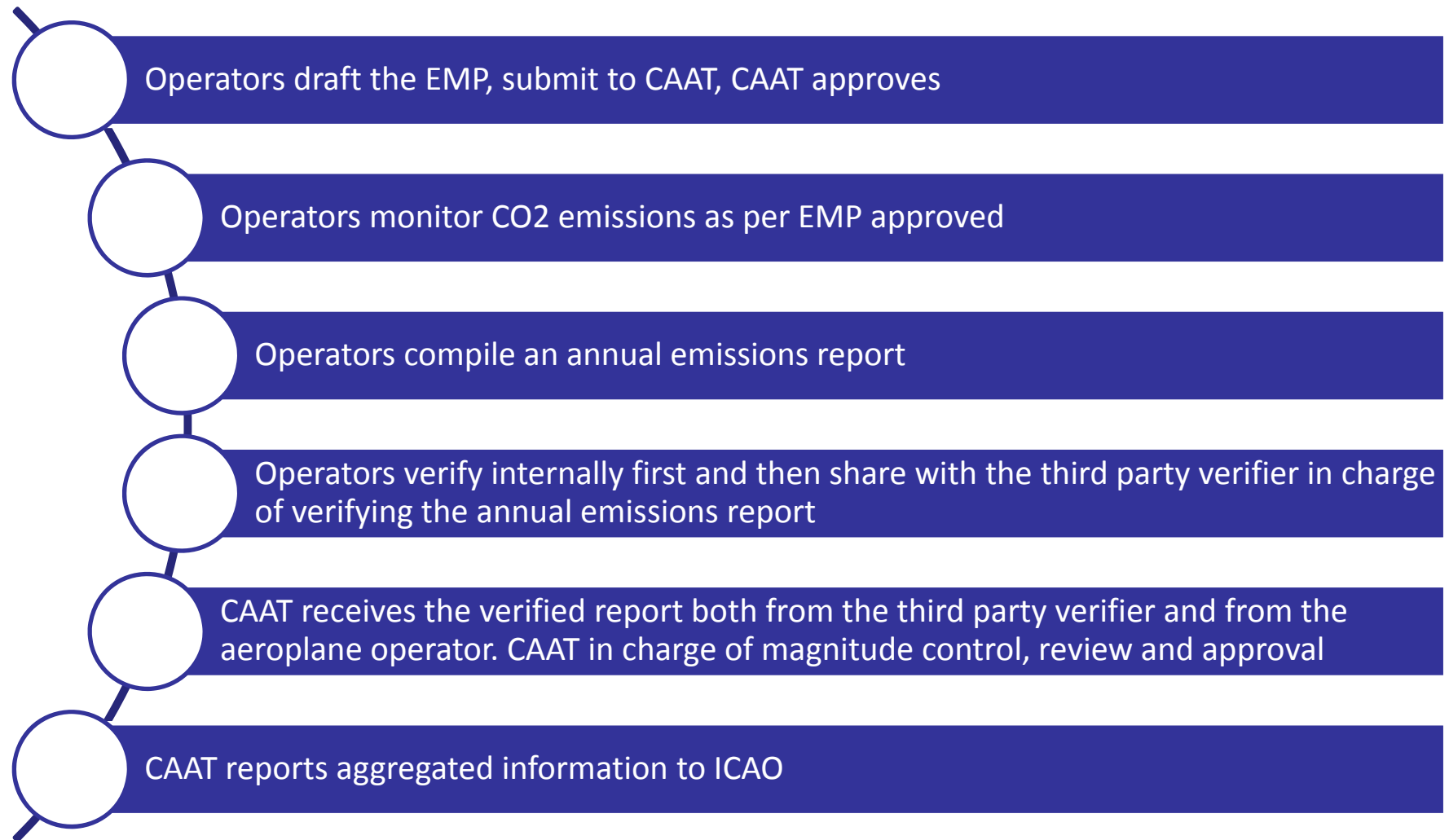
Most of you have already clearly in mind how to deal with EMP and all pending problems have been fixed. Correct?

Most of you has already chosen the fuel monitoring method. Some opted for CERT and some others for Block on-block off. Correct?

Now, you have to share your EMP WITH CAAT by 30.11.2018



WHAT'S NEXT ON THE MRV LIFE CYCLE AFTER EMP WORK?





REMIND NEXT DEADLINES

**WHEN YOU
PRIORITIZE,
ALL THE
IMPORTANT STUFF
GETS DONE.**



PENDING DEADLINES

- 1) You have to submit EMP by 30.11.2018 (only once, unless there is a need to review)
- 2) CAAT shall communicate with you and approve by 31.12.2018 (only once, unless there is a need to review)
- 3) CAAT legal framework on MRV will be enforced by 31.12.2018
- 4) CAAT is in contact with the national accreditation body (ongoing)
- 5) Accredited verification body on ISO 14065:2013 « ghg –PART 3- SPECIFICATION with guidance for the validation and verification of GHG assertions » will be trained on CORSIA (ongoing)
- 6) CAAT will share with ICAO a list of verification bodies accredited in Thailand as per part II Chapter 1,1.3.7. SARPs by 30 APRIL 2019



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Thank you for your attention!

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