

# AeDMS - Aviation Data Management System

IT Tool (AeDMS) in the EU-CORSIA - Africa & Caribbean project

Tahir Riaz, Aamir Saeed, Fareed Badvi

Aviation Emission Data Management System Expert

**Working for quieter and cleaner aviation.  
Your safety is our mission.**

# Outlines

- Brief overview of AeDMS
- Benefits of AeDMS
- Overview of the Project Development Phases
- AeDMS System Mockups



Aviation Emission Data  
Management Systems

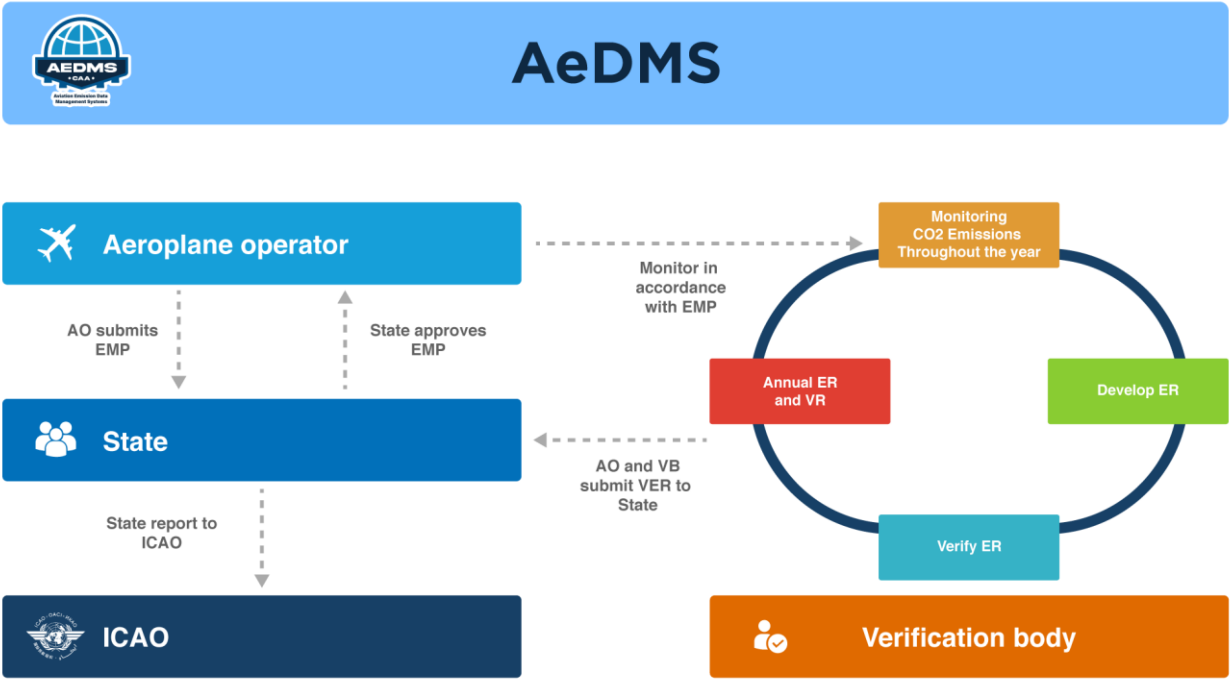
# Outlines

- **Brief overview of AeDMS**
- Benefits of AeDMS
- Overview of the Project Development Phases
- AeDMS System Mockups



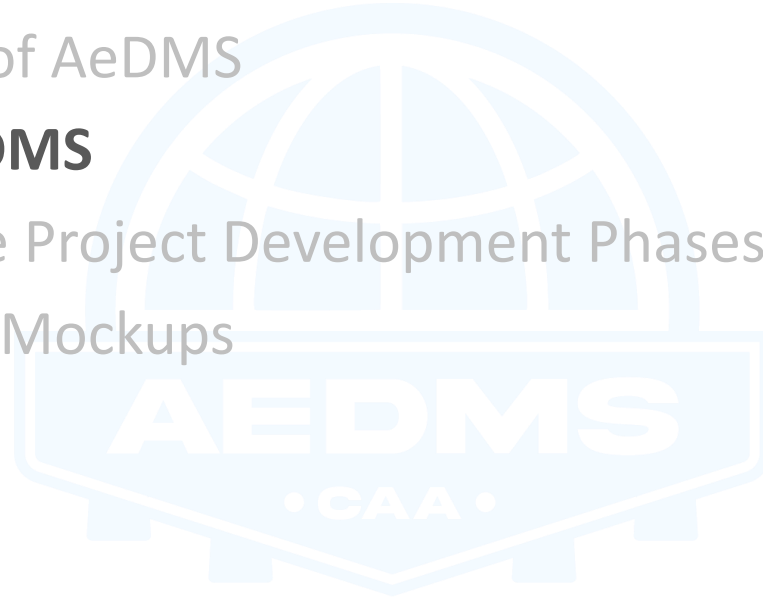
Aviation Emission Data  
Management Systems

# AeDMS Overview



# Outlines

- Brief overview of AeDMS
- **Benefits of AeDMS**
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- AeDMS System Mockups



Aviation Emission Data  
Management Systems

# AeDMS Benefits

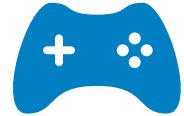
## → Benefit 1: All emissions are reported

With AEDMS, all CO2 emissions are reported, including those from international flights. This allows for a more accurate and comprehensive understanding of the environmental impact of aviation.



## → Benefit 2: Easy data management

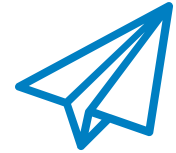
AEDMS makes it easy to manage emissions data. The system automatically retrieves emissions data and stores it in a centralized database. This eliminates the need for manual data entry.



# AeDMS Benefits

## → Benefit 3: Decreased email correspondence

AEDMS reduces the need for email correspondence between the AO, the state, and the verifying body. All parties can access the emissions data and reports through the system, eliminating the need for multiple emails and attachments.



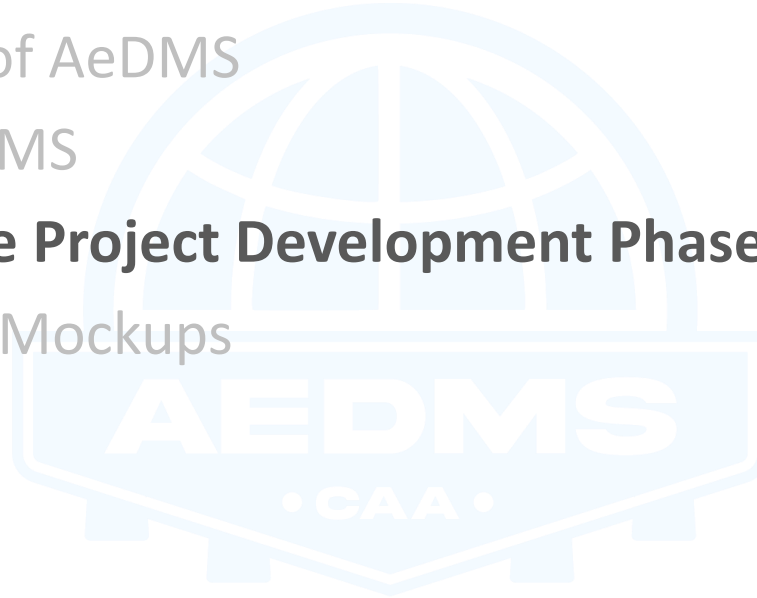
## → Benefit 4: Data analysis

AEDMS provides data analysis tools that allow for detailed analysis of emissions data. This allows for a better understanding of the environmental impact of aviation and can inform policy decisions.



# Outlines

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Aviation Emission Data  
Management Systems



# Overview of the Project Development Phases

- Requirements Gathering Phase
- Solution Architecture Design
- Backend Solution Design, Database Design
- UI/UX, Frontend Application Design
- Customization Development as per Member State
- Testing for Member State
- Deployment for Each Member State

# Overview of the Project Development Phases

## → Requirements Gathering Phase

The requirements gathering phase involves identifying the EASA goals and objectives for AeDMS, as well as the functional and technical requirements needed to achieve them. This phase is critical to ensure that the project meets the needs of all stakeholders.

- Solution Architecture Design
- Backend Solution Design, Database Design
- UI/UX, Frontend Application Design
- Customization Development as per Member State
- Testing for Member State
- Deployment for Each Member State

# Overview of the Project Development Phases

→ Requirements Gathering Phase

## → Solution Architecture Design

The solution architecture design phase involves defining the overall solution architecture, including workflow design, LLD, HLD, backend server functionality, software, and database design. This phase ensures that the system is designed to meet the project requirements and is scalable for future growth.

- Backend Solution Design, Database Design
- UI/UX, Frontend Application Design
- Customization Development as per Member State
- Testing for Member State
- Deployment for Each Member State

# Overview of the Project Development Phases

- Requirements Gathering Phase
- Solution Architecture Design

## → Backend Solution Design, Database Design

The backend solution design and database design phase involve creating a detailed design of the system's backend infrastructure, including servers, databases, and APIs. This phase ensures that the system's backend is designed to handle the expected traffic and data loads.

- UI/UX, Frontend Application Design
- Customization Development as per Member State
- Testing for Member State
- Deployment for Each Member State

# Overview of the Project Development Phases

- Requirements Gathering Phase
- Solution Architecture Design
- Backend Solution Design, Database Design

## → UI/UX, Frontend Application Design

The UI/UX and frontend application design phase involve creating the graphical user interface and designing the frontend application. This phase ensures that the system's frontend is user-friendly, intuitive, and meets the project's design requirements.

- Customization Development as per Member State
- Testing for Member State
- Deployment for Each Member State

# Overview of the Project Development Phases

- Requirements Gathering Phase
- Solution Architecture Design
- Backend Solution Design, Database Design

## → Customization Development as per Member State

The customization development phase involves modifying the system to meet the specific requirements of each member state. This phase ensures that the system is tailored to the unique needs of each member state.

- Testing for Member State
- Deployment for Each Member State

# Overview of the Project Development Phases

- Requirements Gathering Phase
- Solution Architecture Design
- Backend Solution Design, Database Design
- Customization Development as per Member State

## → Testing for Member State

The testing phase involves thoroughly testing the system to ensure that it is functioning correctly and meeting all project requirements. This phase includes unit testing, integration testing, system testing, and user acceptance testing.

- Deployment for Each Member State

# Overview of the Project Development Phases

- Requirements Gathering Phase
- Solution Architecture Design
- Backend Solution Design, Database Design
- Customization Development as per Member State
- Testing for Member State

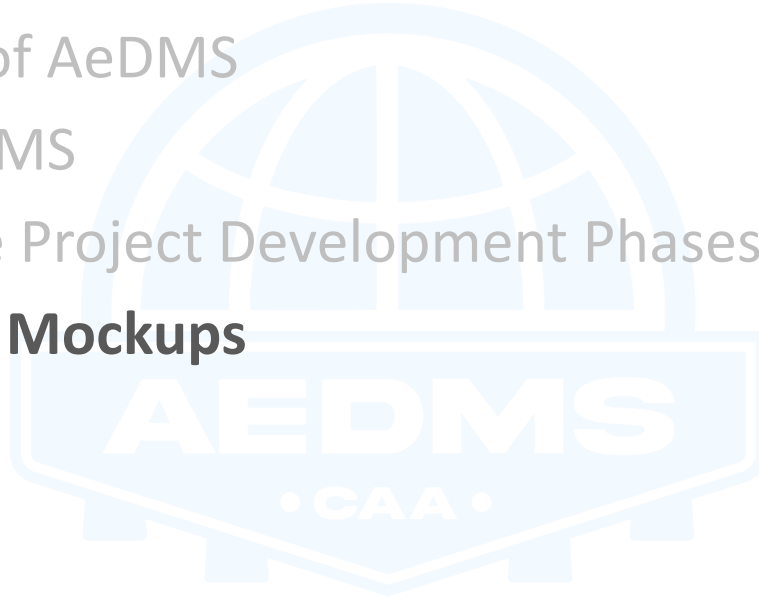
## → Deployment for Each Member State

The deployment phase involves deploying the system to each member state's environment. This phase ensures that the system is properly installed and configured in each member state's environment.



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- Brief overview of AeDMS
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- Overview of the Project Development Phases
- **AeDMS System Mockups**



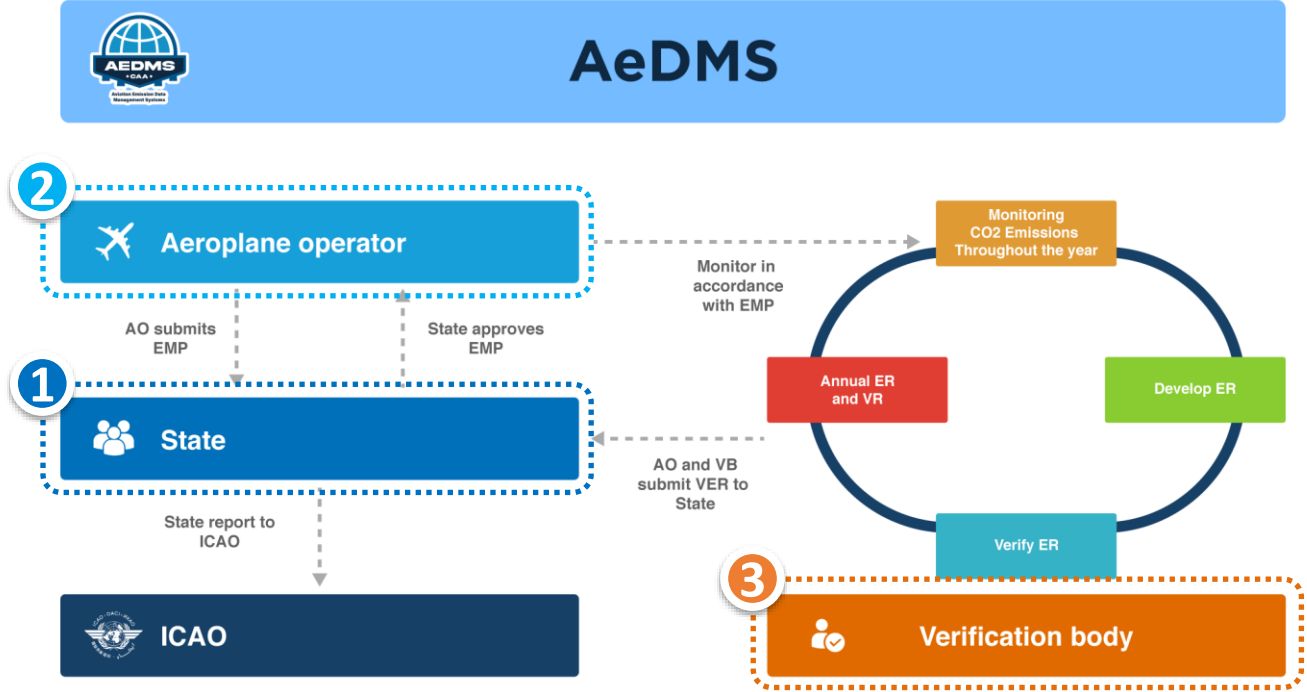
Aviation Emission Data  
Management Systems

# Outlines

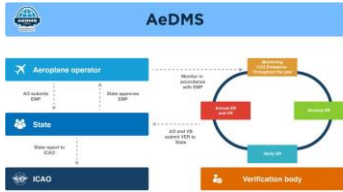
- Brief overview of AeDMS
- Benefits of AeDMS
- Overview of the Project Development Phases
- **AeDMS System Mockups**
  - **Roles and Sign-in**
  - AeDMS roles of State
  - AeDMS roles of Aeroplane Operator
  - AeDMS roles of Verifying Body



# AeDMS Platform User



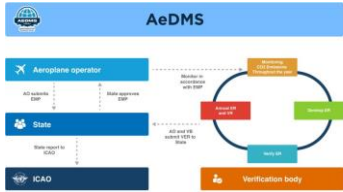
# Sign In



## Sign in

[Forgot Password?](#)

# Sign In



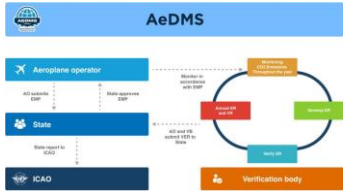
## Forgot Password?

Please enter your email address to receive a verification code

Send Email

← Go back to [Sign in](#)

# Sign In



## Create New Password

New password required. Cannot match previous. Stay secure

🔒 Enter New Password 

🔒 Re-Type Password 

Confirm Password

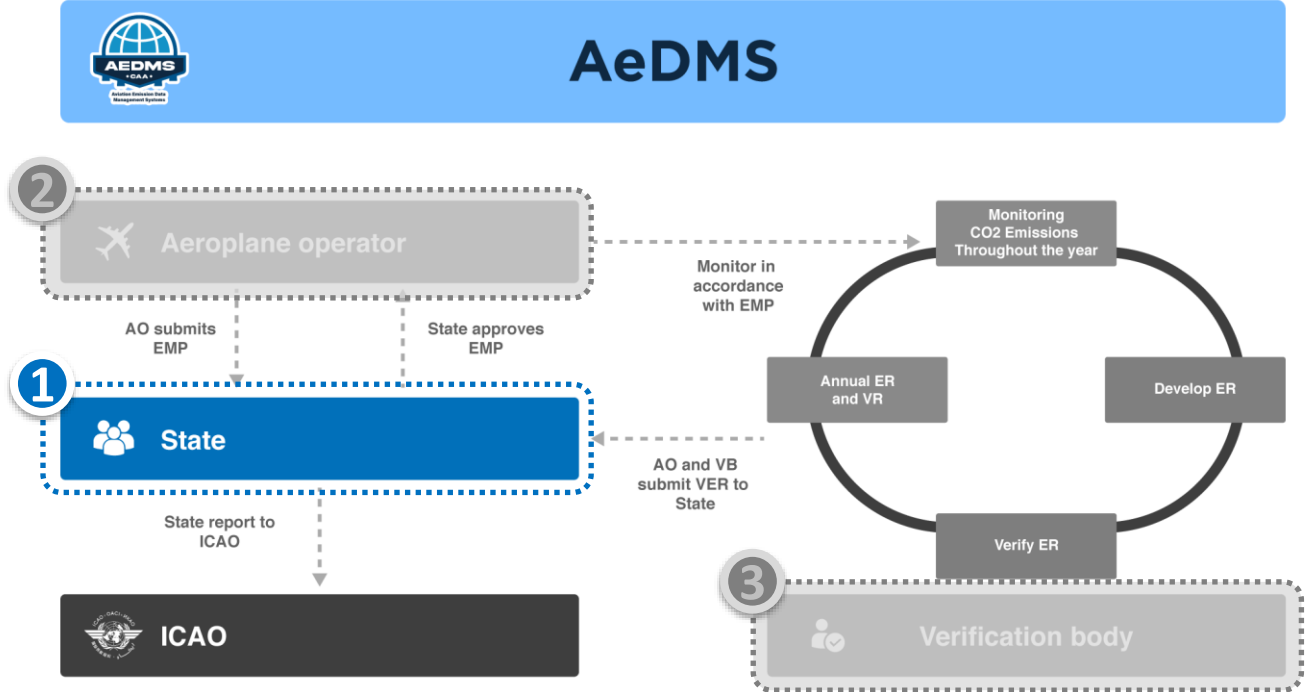
← [Go back to Sign in](#)

# Outlines

- Brief overview of AeDMS
- Benefits of AeDMS
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- **AeDMS System Mockups**
  - Roles and Sign-in
  - **AeDMS roles of State**
  - AeDMS roles of Aeroplane Operator
  - AeDMS roles of Verifying Body

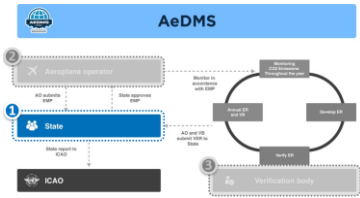


# AeDMS Platform User





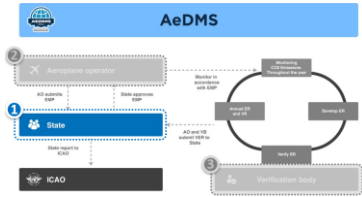
# State



The screenshot shows the AeDMS dashboard interface. At the top, there is a search bar and a notification bell with 28+ alerts. The navigation menu on the left includes: Dashboard, Emissions Monitoring Plan (with a sub-menu for EMP Approval Request, Active EMP, Emissions Report, Role Management, Aeroplane Operator, and Verification Body), and ICAO Report. The main content area displays four key metrics:

Metric	Value	Description
Emissions Monitoring Plan	87	Approval Requests
Emissions Monitoring Plan	35	Active
Emissions Report	62	Pending OMC
Emissions Report	62	Approved

# State



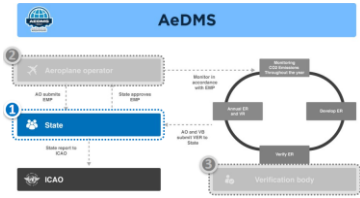
**AEDMS** Search [ ] SA 28+

- Dashboard
- Emissions Monitoring Plan
  - EMP Approval Request
  - Active EMP
- Emissions Report
- Role Management
  - Aeroplane Operator
  - Verification Body
- ICAO Report

### Emission Monitoring Plan Approval Requests

Aeroplane Operator	Submission Date	Status	Actions
Kulula	9 July 2022	Inactive	<a href="#">View</a> <a href="#">Download</a> <a href="#">Take Action</a>
Royal Air Maroc	31 January 2023	Inactive	<a href="#">View</a> <a href="#">Download</a> <a href="#">Take Action</a>
Mango	25 January 2021	Inactive	<a href="#">View</a> <a href="#">Download</a> <a href="#">Take Action</a>
Air Mauritius	20 May 2022	Inactive	<a href="#">View</a> <a href="#">Download</a> <a href="#">Take Action</a>
South African Airways	24 March 2023	Inactive	<a href="#">View</a> <a href="#">Download</a> <a href="#">Take Action</a>
Kenya Airway	8 June 2022	Inactive	<a href="#">View</a> <a href="#">Download</a> <a href="#">Take Action</a>
Ethiopian Airlines	3 January 2021	Inactive	<a href="#">View</a> <a href="#">Download</a> <a href="#">Take Action</a>

# State

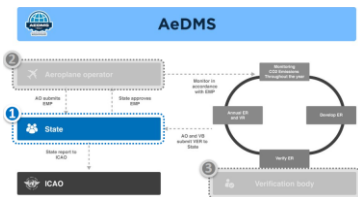


The screenshot displays the AeDMS interface. The top navigation bar includes the AeDMS logo, a search bar, and user information (SA). The left sidebar shows the navigation menu with options: Dashboard, Emissions Monitoring Plan (selected), EMP Approval Request, Active EMP, Emissions Report, Role Management, Airplane Operator, Verification Body, and ICAO Report. The main content area is titled "Emissions Monitoring Plan Approval Requests" and contains a table with the following data:

Aeroplane Operator	Submission Date	Status	Actions
Kukula	9 July 2022	Inactive	View Download Take Action
Royal Air Maroc	31 January 2023	Inactive	View Download Take Action
Mango	25 January 2021	Inactive	View Download Take Action
Air Mauritius	20 May 2022	Inactive	View Download Take Action
South African Airways		Inactive	View Download Take Action
Kenya Airway		Inactive	View Download Take Action
Ethiopian Airlines		Inactive	View Download Take Action

A modal dialog box is overlaid on the table, titled "Confirm EMP Approval". It contains the text "Are you sure you want to approve this EMP?" and a "Remarks" section with a text input field labeled "Add remarks" and a character count "0 / 1000". The dialog has "Cancel" and "Approve" buttons.

# State

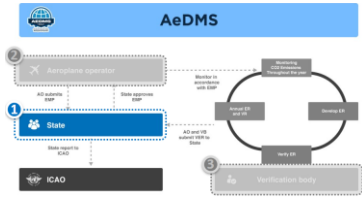


The screenshot shows the AeDMS web application interface. The top navigation bar includes the AeDMS logo, a search bar, and user information (SA). The main content area displays a table titled "Emissions Monitoring Plan Approval Requests". The table has columns for "Aeroplane Operator", "Submission Date", "Status", and "Actions". The "Status" column shows "Inactive" for all entries. The "Actions" column contains "View", "Download", and "Take Action" links for each row.

Aeroplane Operator	Submission Date	Status	Actions
Kukula	9 July 2022	Inactive	View Download Take Action
Royal Air Maroc	31 January 2023	Inactive	View Download Take Action
Mango	25 January 2021	Inactive	View Download Take Action
Air Mauritius	20 May 2022	Inactive	View Download Take Action
South African Airways		Inactive	View Download Take Action
Kenya Airway		Inactive	View Download Take Action
Ethiopian Airlines		Inactive	View Download Take Action

A modal dialog box is open in the foreground, titled "Confirm EMP Rejection". It contains the text "Are you sure you want to reject this EMP?" and a "Remarks" field with a text input area and a character count "0 / 1000". The dialog has "Cancel" and "Reject" buttons at the bottom.

# State



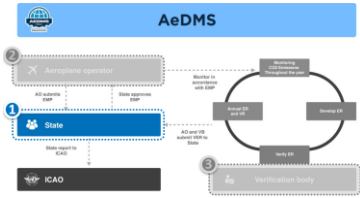
The screenshot shows the AEDMS (Active Emissions Monitoring System) web application interface. The top navigation bar includes the AEDMS logo, a search bar, a notification bell with '28+' alerts, and a user profile icon for 'SA'. The left sidebar contains a menu with the following items:

- Dashboard
- Emissions Monitoring Plan (expanded)
- EMP Approval Request
- Active EMP (highlighted)
- Emissions Report
- Role Management (expanded)
- Aeroplane Operator
- Verification Body
- ICAO Report

The main content area displays the 'Active Emissions Monitoring Plans' table. The table has the following columns: Aeroplane Operator, Submission Date, Approval Date, and Actions. The data rows are as follows:

Aeroplane Operator	Submission Date	Approval Date	Actions
Kulula	Jul 9, 2022	Aug 09, 2022	<a href="#">View</a> <a href="#">Download</a>
Kenya Airway	Jan 31, 2023	Feb 16, 2023	<a href="#">View</a> <a href="#">Download</a>
Air Mauritius	Jan 25, 2021	Mar 14, 2021	<a href="#">View</a> <a href="#">Download</a>
Royal Air Maroc	May 13, 2022	Sep 16, 2022	<a href="#">View</a> <a href="#">Download</a>
Ethiopian Airlines	Mar 24, 2023	Mar 28, 2023	<a href="#">View</a> <a href="#">Download</a>
Mango	Jun 8, 2022	Aug 09, 2022	<a href="#">View</a> <a href="#">Download</a>
South African Airways	Jan 3, 2021	Apr 12, 2021	<a href="#">View</a> <a href="#">Download</a>

# State



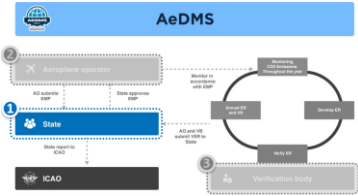
**AEDMS** Search 28+ SA


- Dashboard
- Emissions Monitoring Plan
  - EMP Approval Request
  - Active EMP
  - Emissions Report**
  - Role Management
    - Aeroplane Operator
    - Verification Body
  - ICAO Report

### Emissions Reports


Aeroplane Operator	Verification Body	Year	Submission Date	Status	Actions
Royal Air Maroc	Bureau Veritas	2022	9 July 2023	Cross checked	<a href="#">View</a>
Mango	SGS	2021	31 January 2022	Pending	<a href="#">View</a>
Kenya Airway	TÜV SÜD	2020	25 January 2021	Cross checked	<a href="#">View</a>
South African Airways	Intertek	2019	20 May 2020	Cross checked	<a href="#">View</a>
Ethiopian Airlines	Eurofins	2018	24 March 2019	Pending	<a href="#">View</a>
Air Mauritius	ALS Limited	2017	8 June 2018	Pending	<a href="#">View</a>
Kulula	Control Union	2016	3 January 2017	Cross checked	<a href="#">View</a>

# State




AEDMS

Search

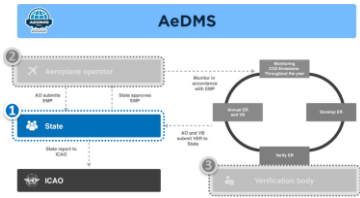
20+
 SA

- Dashboard
- Emissions Monitoring Plan
  - EMP Approval Request
  - Active EMP
  - Emissions Report
  - Role Management
  - Aeroplane Operator
  - Verification Body
- ICAO Yearly Reporting
  - State Pair
  - Aeroplane Operator

## Emissions Reports

Aeroplane Operator	Verification Body	Year	Submission Date	Cross Check	Magnitude Check	Actions
Royal Air Maroc	Bureau Veritas	2022	9 July 2023	Done	Done	<a href="#">View</a>
Mango	SGS	2021	31 January 2022	Pending	Pending	Take Action
Kenya Airway	TÜV SÜD	2020	25 January 2021	Done	Done	<a href="#">View</a>
South African Airways	Intertek	2019	20 May 2020	Done	Pending	Take Action
Ethiopian Airlines	Eurofins	2018	24 March 2019	Done	Pending	Take Action
Air Mauritius	ALS Limited	2017	8 June 2018	Pending	Pending	Take Action
Kulula	Control Union	2016	3 January 2017	Done	Done	<a href="#">View</a>

# State



The screenshot shows the AeDMS interface for 'Emissions Report Cross Checking'. The main table lists operators and their submission dates. A modal window is open, displaying details for TAAG Angola Airlines.

Aeroplane Operator	Submission Date	Status	Actions
Royal Air Maroc	9.24		<a href="#">View</a>
Ethiopian Airlines	31.1		<a href="#">View</a>
Kulula	25.1		<a href="#">View</a>
Mango	20.1		<a href="#">View</a>
South African Airways	24.1		<a href="#">View</a>
Air Mauritius	8.24		<a href="#">View</a>
Kenya Airway	3.24		<a href="#">View</a>

### Cross Check

Operator Name: TAAG Angola Airlines  
Attribution State: Angola  
Year: 2020  
Date: Mar 02, 2021  
Cross Check Status: Pending

Aeroplane Operator VER & VR

No File Yet  
[Notify AO](#)

Remarks  
No remarks

Verification Body VER & VR

- Verified Emissions Report.xlsx [Download](#)
- Verification Report.docx [Download](#)

Remarks  
We are committed to reducing our carbon footprint and have made significant progress as highlighted in the Emission Report. Our focus on renewable energy and innovative Solu... [See More](#)

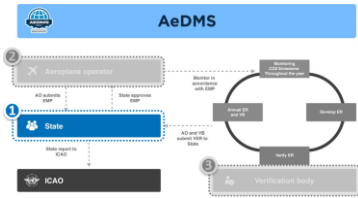
All the Information is Synchronized

Your Remarks  
Add Remarks  
0 / 1000

[Notify AO](#) [Approve](#) [Cancel](#)



# State



The screenshot shows the AeDMS interface for 'Emissions Report Cross Checking'. The main table lists various aeroplane operators and their submission dates. A modal window is open for the operator 'TAAG Angola Airlines'.

Aeroplane Operator	Submission Date	Status	Actions
Royal Air Maroc	9.2		<a href="#">View</a>
Ethiopian Airlines	31.		<a href="#">View</a>
Kulula	25.		<a href="#">View</a>
Mango	20.		<a href="#">View</a>
South African Airways	24.		<a href="#">View</a>
Air Mauritius	8.2		<a href="#">View</a>
Kenya Airway	3.2		<a href="#">View</a>

### Cross Check

Operator Name: TAAG Angola Airlines  
Attribution State: Angola  
Year: 2020  
Date: Mar 02, 2021  
Cross Check Status: Pending

#### Aeroplane Operator VER & VR

- Verified Emissions Report.xlsx [Download](#)
- Verification File.pdf [Download](#)

**Remarks**  
We are committed to reduce our emissions from international flights in order to meet the guidelines by CORSIA and... [See More](#)

#### Verification Body VER & VR

- Verified Emissions Report.xlsx [Download](#)
- Verification Report.pdf [Download](#)

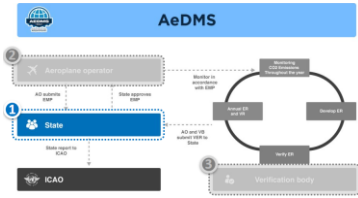
**Remarks**  
We have completed the verification process according to the guidelines provided by ICAO document Annex 16. We have tried our best to.... [See More](#)

All the Information is Synchronized

**Your Remarks**  
Add Remarks  
0 / 1000

[Notify AO](#) [Approve](#) [Cancel](#)

# State



The screenshot shows the AeDMS interface for Emissions Report Cross Checking. The main content area displays a table of aeroplane operators and their submission dates. A modal window titled "Cross Check" is open, showing details for TAAG Angola Airlines. The modal includes sections for "Aeroplane Operator VER & VR" and "Verification Body VER & VR", each with download links for reports. There are also "Remarks" sections and a "Your Remarks" text area.

Aeroplane Operator	Submission Date	Status	Actions
Royal Air Maroc	9 Jun 2021	Completed	View
Ethiopian Airlines	31 Jul 2021	Completed	View
Kulula	25 Jul 2021	Completed	View
Mango	20 Jul 2021	Completed	View
South African Airways	24 Jul 2021	Completed	View
Air Mauritius	8 Jul 2021	Completed	View
Kenya Airway	3 Jul 2021	Completed	View

### Cross Check

Operator Name: TAAG Angola Airlines  
Attribution State: [State]  
Year: 2020  
Date: Mar 02, 2021  
Cross Check Status: Pending

#### Aeroplane Operator VER & VR

- Verified Emissions Report.xls [Download]
- Verification Report.pdf [Download]

Remarks: We are committed to reducing our carbon footprint and have made significant progress as highlighted in the Emission Report. Our focus on renewable energy and innovative Solutions... [See More](#)

#### Verification Body VER & VR

- Verified Emission Report.xlsx [Download]
- Verification Report.docx [Download]

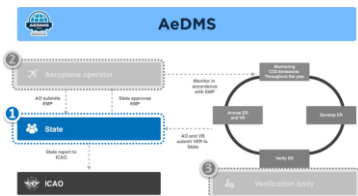
Remarks: We are committed to reducing our carbon footprint and have made significant progress as highlighted in the Emission Report. Our focus on renewable energy and innovative Solutions... [See More](#)

All the Information is Synchronized

Your Remarks:  (0 / 1000)

Buttons: Cancel, Notify AO, Approve

# State



The screenshot shows the AeDMS interface for Emissions Report Cross Checking. The main table lists various aeroplan operators and their submission dates. A modal window titled "Cross Check" is open, displaying details for TAAG Angola Airlines.

Aeroplan Operator	Submission Date	Status	Actions
Royal Air Maroc	9.24		<a href="#">View</a>
Ethiopian Airlines	31.1		<a href="#">View</a>
Kulula	25.1		<a href="#">View</a>
Mango	20.1		<a href="#">View</a>
South African Airways	24.1		<a href="#">View</a>
Air Mauritius	8.24		<a href="#">View</a>
Kenya Airway	3.24		<a href="#">View</a>

### Cross Check

Operator Name: TAAG Angola Airlines  
Attribution State: Angola  
Year: 2020  
Date: Mar 02, 2021  
Cross Check Status: Cross Checked

#### Aeroplane Operator VER & VR

- Verified Emissions Report.xlsx [Download](#)
- Verification Report.pdf [Download](#)

#### Remarks

We are committed to reduce our emissions from international flights in order to meet the guidelines by CORSIA and... [See More](#)

#### Verification Body VER & VR

- Verified Emissions Report.xlsx [Download](#)
- Verification Report.pdf [Download](#)

#### Remarks

We have completed the verification process according to the guidelines provided by ICAO document Annex 16. We have tried our best to... [See More](#)

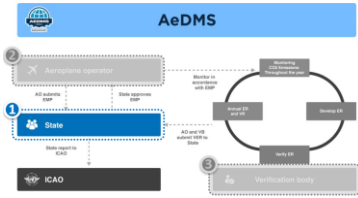
All the Information is Synchronized

#### Your Remarks

All information in the verification report needs to synced with information provided by the verification body. Please review and submit again.... [See More](#)

[Notify AO](#) [Approve](#) [Cancel](#)

# State



AEDMS

Search

Dashboard

Emissions M

Request for

Active EMP

Emissions R

Role Manag

Aeroplane O

Verification

ICAO Yearly R

Emissions R

Emissions R

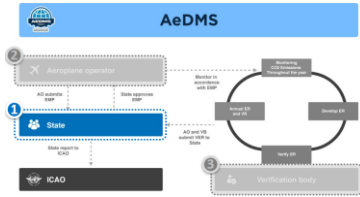
OMC

Route					Fuel	
ER			Form C		ER	Form M
#	From	To	From	To	14230	14230
1	Indonesia	Philippines	Indonesia	Philippines	Fuel Use Monitoring Method	
2	South Africa	Vietnam	South Africa	Vietnam	CERT	
3	UAE	China	UAE	China		
4	US	India	US	India		
5	Georgia	Nigeria	Georgia	Nigeria		

Aircraft Type			Aircraft Type	
ER		Form C	ER	Form M
A320		A320	A320	A320

# State



**AEDMS** Search [ ] SA 28+

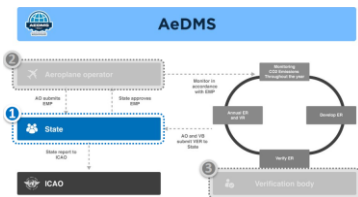
- Dashboard
- Emissions Monitoring Plan
  - EMP Approval Requests
  - Active EMPs
- Emissions Reports
- Role Management
  - Aeroplane Operators**
  - Verification Bodies

### Aeroplane Operator

+ Add New AO

Airline Name	Airline Code (ICAO Code)	Email	Password	Creation Date	Actions
Mango	MNO	jessica.hanson@example.com	*****	March 30, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
Air Mauritius	MAU	willie.jennings@example.com	*****	January 19, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
Kulula	CAW	jackson.graham@example.com	*****	March 5, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
South African Airways	SAA	michelle.rivera@example.com	*****	January 16, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
Royal Air Maroc	RAM	georgia.young@example.com	*****	January 26, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
Kenya Airway	KQA	tim.jennings@example.com	*****	February 15, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
Ethiopian Airlines	ETH	nathan.roberts@example.com	*****	March 26, 2020	<a href="#">Edit</a> <a href="#">Delete</a>

# State



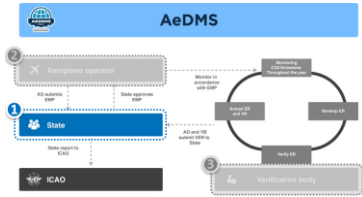
The screenshot shows the AeDMS web application interface. The top navigation bar includes the AeDMS logo, a search bar, and the user profile 'Jane Cooper'. The left sidebar contains a menu with items: Dashboard, Emissions Monitoring Plan, Request for Approval, Active EMP, Emissions Report, Rule Management, Aeroplane Operator (highlighted), and Verification Body. The main content area is titled 'Aeroplane Operator' and features a table of operators and an 'Add New AO' button. A modal window is open for adding a new operator, with fields for Airline Name, Airline Code (ICAO code), Full Name, Email, and Password.


Airline Name	Airline Code (ICAO Code)	Full Name	Email	Password	Creation Date	Actions
Mango	DJXN-159			*****	March 30, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
Air Mauritius	E-162			*****	January 19, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
Kulu	CDVI-211			*****	March 5, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
South African Airways	FZRT-0371			*****	January 16, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
Royal Air Maroc	BJXN-564			*****	January 26, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
Kenya Airway	D-610			*****	February 15, 2020	<a href="#">Edit</a> <a href="#">Delete</a>
Ethiopian Airlines	CAGN-900			*****	March 26, 2020	<a href="#">Edit</a> <a href="#">Delete</a>

### Add New Aeroplane Operator


- Airline Name**  
Enter Airline Name
- Airline Code (ICAO code)**  
Enter Airline Code
- Full Name**  
Enter Username
- Email**  
Enter Email
- Password**  
Enter Password

[Cancel](#) [Create](#)




AEDMS

Search

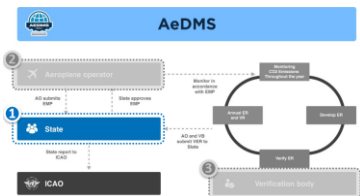
28+
 SA

- Dashboard
- Emissions Monitoring Plan
  - EMP Approval Requests
  - Active EMPs
- Emissions Reports
- Role Management
- Aeroplane Operators
- Verification Bodies

## Verification Bodies + Add New VB

Verification Body Name	Creation Date	Email	Password	
Bureau Veritas	March 30, 2020	jessica.hanson@example.com	*****	<a href="#">Edit</a> <a href="#">Delete</a>
SGS	January 19, 2020	willie.jennings@example.com	*****	<a href="#">Edit</a> <a href="#">Delete</a>
TÜV SÜD	March 5, 2020	jackson.graham@example.com	*****	<a href="#">Edit</a> <a href="#">Delete</a>
Intertek	January 16, 2020	michelle.rivera@example.com	*****	<a href="#">Edit</a> <a href="#">Delete</a>
Eurofins	January 26, 2020	georgia.young@example.com	*****	<a href="#">Edit</a> <a href="#">Delete</a>
ALS Limited	February 15, 2020	tim.jennings@example.com	*****	<a href="#">Edit</a> <a href="#">Delete</a>
Control Union	March 26, 2020	nathan.roberts@example.com	*****	<a href="#">Edit</a> <a href="#">Delete</a>

# State



The screenshot shows the AeDMS 'Verification Body' management interface. The left sidebar contains navigation options: Dashboard, Emissions Monitoring Plan, Request for Approval, Active EMP, Emissions Report, Rule Management, Aeroplane Operator, and Verification Body. The main content area displays a table of existing verification bodies and an 'Add New VB' modal window.

Verification Body Name	Creation Date	Email	Password	
Bureau Veritas	March 30, 2020	jessica.hanson@example.com	*****	<a href="#">Edit</a> <a href="#">Delete</a>
SGS	January 19, 2020	willie.jennings@example.com	*****	<a href="#">Edit</a> <a href="#">Delete</a>
TUV SUD			*****	<a href="#">Edit</a> <a href="#">Delete</a>
Intertek			*****	<a href="#">Edit</a> <a href="#">Delete</a>
Eurofins			*****	<a href="#">Edit</a> <a href="#">Delete</a>
ALS Limited			*****	<a href="#">Edit</a> <a href="#">Delete</a>
Control Union			*****	<a href="#">Edit</a> <a href="#">Delete</a>

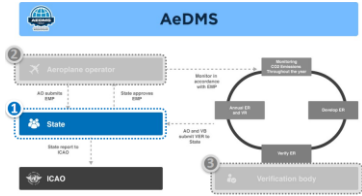
### Add New Verification Body


- \* Verification Body Name
- \* Email
- \* Password

[Cancel](#) [Create](#)





# State





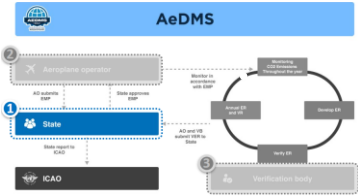
Search


 20+
  SA

- Dashboard
- EMP Approval Request
    - Active EMP
  - Emissions Report
  - Role Management
    - Aeroplane Operator
      - Verification Body
      - ICAO Yearly Reporting
        - State Pair
        - Aeroplane Operator


### Total Annual CO<sub>2</sub> Emissions on Each State Pair Generate Excel Report

From State	To State	Year	Subject to offsetting	CO <sub>2</sub> Emissions (tons)
Algeria	Zimbabwe	2022	Yes	120000
Angola	Zambia	2011	Yes	120000
Benin	Uganda	2016	No	120000
Botswana	Tunisia	2020	Yes	120000
Burkina Faso	Togo	2022	No	120000
Burundi	Tanzania	2019	No	120000
Cameroon	Sudan	2019	No	120000
Cape Verde	South Sudan	2021	Yes	120000
Central African Republic	South Africa	2018	Yes	120000
Chad	Somalia	2018	Yes	120000
Comoros	Sierra Leone	2021	No	120000
Cote d'Ivoire	Seychelles	2021	No	120000
Djibouti	Senegal	2021	Yes	120000
Egypt	Mali	2006	Yes	120000





Search

20+
 SA

- Dashboard
- Emissions Monitoring Plan
  - EMP Approval Request
  - Active EMP
- Emissions Report
- Role Management
  - Aeroplane Operator
  - Verification Body
- ICAO Yearly Reporting
  - State Pair
  - Aeroplane Operator

### Total Annual CO<sub>2</sub> Emissions for Each Aeroplane Operator Attributed to the State

[Generate Excel Report](#)

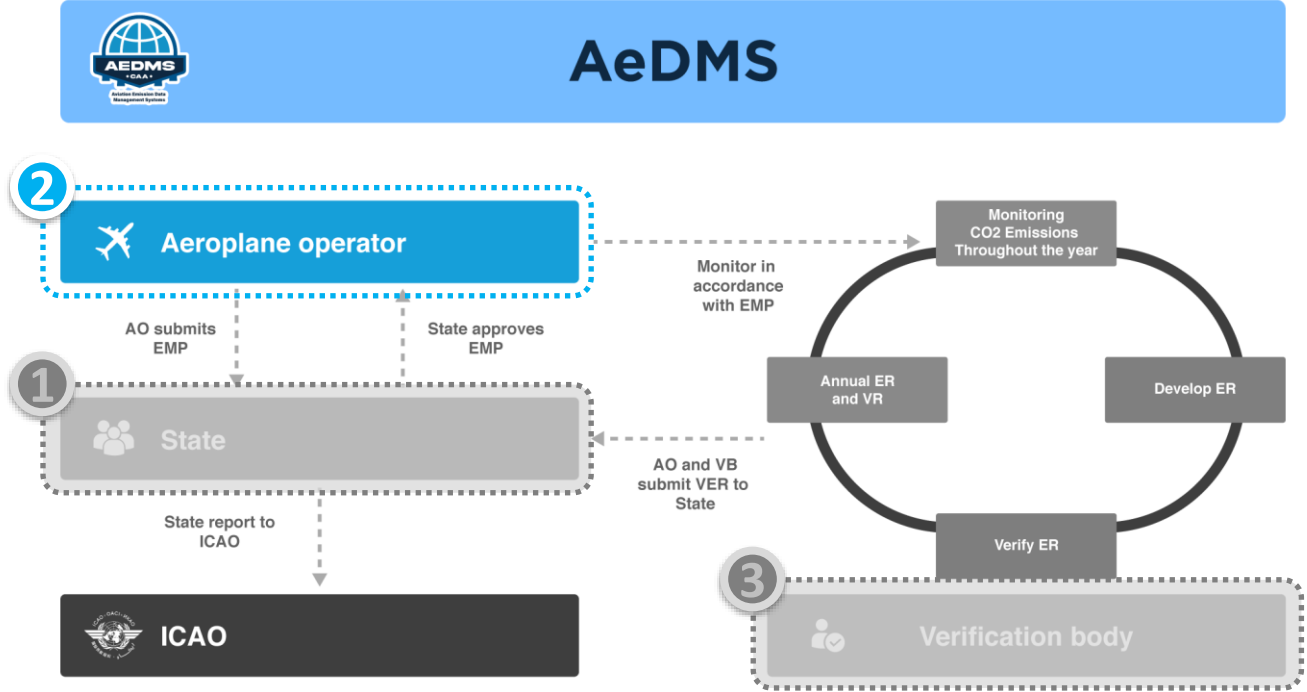
Aeroplane Operator	Year	Subject to Offsetting Requirements	CO <sub>2</sub> Emissions (tons)
Airlink	2022	Yes	120000
CemAir	2011	Yes	120000
FlySafair	2016	No	120000
LIFT Airline	2020	Yes	120000
South African Airways	2022	No	120000
Airlink	2019	No	120000
CemAir	2019	No	120000
FlySafair	2021	Yes	120000
LIFT Airline	2018	Yes	120000
South African Airways	2018	Yes	1200000
Airlink	2021	No	120000
CemAir	2021	No	120000
FlySafair	2021	Yes	120000
LIFT Airline	2006	Yes	120000

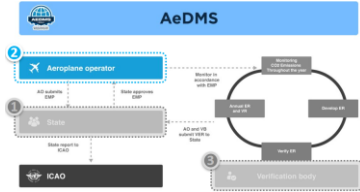
# Outlines


- Brief overview of AeDMS
- Benefits of AeDMS
- Overview of the Project Development Phases
- **AeDMS System Mockups**
  - Roles and Sign-in
  - AeDMS roles of State
  - **AeDMS roles of Aeroplane Operator**
  - AeDMS roles of Verifying Body




# AeDMS Platform User






AEDMS

Search

28+
 AO

- Dashboard
- Emissions Monitoring Plan
- Emissions Report
- Emissions Data
  - Form C
  - Form M

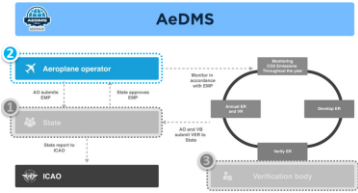
## Request for Approval of Emissions Monitoring Plan + Add New

Version	Submission Date	Monitoring Method	Status	
2.3	Jul 11, 2015	Method-A	Pending Approval	<a href="#">View</a>

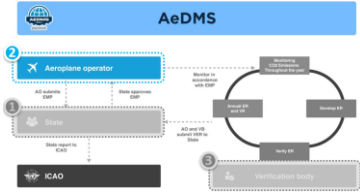
## Emissions Monitoring Plan

Version	Submission Date	Monitoring Method	Status	
2.2	Apr 11, 2023	Method-A	Active	<a href="#">View</a>
1.2	Sep 27, 2016	CERT	Rejected	<a href="#">View</a>
1.1	Mar 22, 2013	CERT	In-Active	<a href="#">View</a>
1.0	Jan 31, 2023	Method-B	In-Active	<a href="#">View</a>
1.0	Jan 31, 2000	Method-B	In-Active	<a href="#">View</a>
1.0	Jan 31, 2000	Method-B	Rejected	<a href="#">View</a>
1.0	Jan 31, 2000	Method-B	Rejected	<a href="#">View</a>



The screenshot shows the 'Emissions Monitoring Plan' form in the AeDMS application. The form is titled 'Emissions Monitoring Plan' and includes the following fields:

- \* Version:** A text input field with the placeholder 'Enter Version'.
- \* Year:** A dropdown menu with the placeholder 'Select Year'.
- \* Upload EMP:** A large dashed box containing a folder icon and the text 'Drag & Drop file here or [Choose file](#)'. Below this box, it states 'Supported formats: XLS, XLSX and CSV' and 'Maximum Size: 10MB'.
- CERT Result File Upload (Optional):** A file upload field with the placeholder 'Choose a file or drop it here..' and a 'Browse' button. Below it, it states 'Supported formats: Docx, Doc, and Pdf' and 'Maximum Size: 5MB'.
- Other File Upload (Optional):** A file upload field with the placeholder 'Choose a file or drop it here..' and a 'Browse' button. Below it, it states 'Supported formats: Docx, Doc, and Pdf' and 'Maximum Size: 5MB'.
- \* Remarks:** A text area with the placeholder 'Add your Remarks'.



- Dashboard
- Emissions Monitoring Plan
- Emissions Report**
- Emissions Data
  - Form C
  - Form M

## Latest Emissions Report

[+ Add New](#)

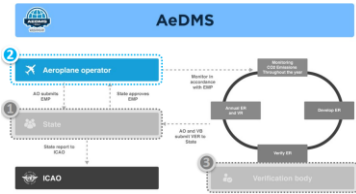
This is your latest emission report. (A short paragraph to convey some useful information)

S No.	Verification Body	Year	Reporting Method	Submission Date	Verification Body	State Authority	Action
1	Bureau Veritas	2023	CERT	Feb 11, 2023	Pending	Pending	<a href="#">View</a>

## Previous Years Emissions Report

These are your previous emission reports. (A short paragraph to some useful information)

S No.	Verification Body	Year	Reporting Method	Submission Date	Verification body	State Authority	Action
1	TÜV SÜD	2022	Method-A	Jul 11, 2022	Verified	Approved	<a href="#">View</a>
2	Eurofins	2018	Method-A	Jul 11, 2021	Verified	Approved	<a href="#">View</a>
3	Intertek	2018	CERT	Sep 27, 2020	Verified	Approved	<a href="#">View</a>
4	ALS Limited	2020	CERT	Mar 22, 2019	Verified	Rejected	<a href="#">View</a>
5	SGS	2018	Method-B	Jan 31, 2018	Verified	Approved	<a href="#">View</a>
6	Bureau Veritas	2018	Method-B	Jan 31, 2017	Verified	Rejected	<a href="#">View</a>

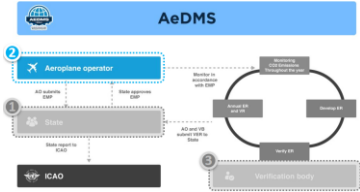



The screenshot shows the AeDMS web application interface. The main page displays the 'Latest Emissions Report' and 'Previous Years Emissions Report'. A modal window titled 'Emissions Report' is open, allowing users to submit a new report. The modal contains the following fields:

- Year:** Select Year (dropdown menu)
- Verification Body:** Select Verification Body (dropdown menu)
- ER Generation Method:** Select ER Generation Method (dropdown menu)
- Upload Emissions Report:** A file upload area with a folder icon and the text 'Drag & Drop file here or [Choose file](#)'. Below this, it states 'Supported formats: XLS, XLSX and CSV' and 'Maximum Size: 10MB'.
- Upload Consent File:** A file upload area with the text 'Choose a file or drop it here...' and a 'Browse' button. Below this, it states 'Supported formats: Docx, Doc, and Pdf' and 'Maximum Size: 5MB'.
- Remarks:** A text area with the placeholder 'Add Remarks' and a character count '0 / 1000'.


At the bottom of the modal, there are 'Cancel' and 'Submit' buttons.






AEDMS

Search

20+

AO

- Dashboard
- Emissions Monitoring Plan
- Emissions Report
- Emissions Data
  - Form C
  - Form M

### Latest Emissions Report

+ Add New

This is your latest emission report. (

S No.	Verification Body	State Authority	Action
1	Bureau Veritas	Pending	View

### Previous Years Emissions Report

These are your previous emission reports.

S No.	Verification Body	State Authority	Action
1	TÜV SÜD	Approved	View
2	Eurofins	Approved	View
3	Intertek	Approved	View
4	ALS Limited	Rejected	View
5	SGS	Approved	View
6	Bureau Veritas	Rejected	View

### Emissions Report

Year
2022

Verification Body
ALS Limited

Reporting Method
CERT

CO2 Emissions (tons)
25,000

Submission Date
Feb 11, 2023

Status
Pending

**Emissions Report**

📄
Emissions Report.xlsx
↓
Download

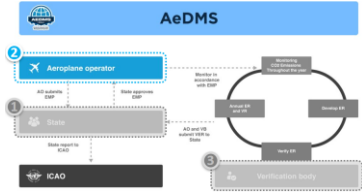
**Consent File**


📄
Consent File.docx
↓
Download

**Remarks**


We are committed to reducing our carbon footprint and have made significant progress as highlighted in the Emission Report. Our focus on renewable energy and innovative Solutions... [See More](#)

Cancel
Sent to SA





Search

20+
 AO

- Dashboard
- Emissions Monitoring Plan
- Emissions Report
- Emissions Data
  - Form C
  - Form M

### Latest Emissions Report + Add New

This is your latest emission report. (

S No.	Verification Body	State Authority	Action
1	Bureau Veritas	Pending	View

### Previous Years Emissions

These are your previous emission reports.

S No.	Verification Body
1	TÜV SÜD
2	Eurofins
3	Intertek
4	ALS Limited
5	SGS
6	Bureau Veritas

### Emissions Report

Year: 2022  
 Verification Body: ALS Limited  
 Reporting Method: Method-A  
 Carbon Emissions: 10,000  
 Submission Date: Jul 11, 2015  
 Status: Verified

**Verified Emissions Report**

📄 Verified Emissions Report.xlsx Download

**Verification Report**

📄 Verification Report.docx Download

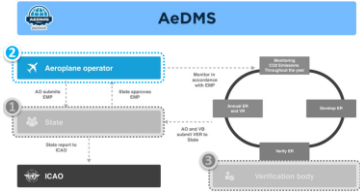
**Remarks**


Add Remarks

0 / 1000


Cancel
Sent to SA

Verification body	State Authority	Action
Verified	Approved	View
Verified	Approved	View
Verified	Approved	View
Verified	Rejected	View
Verified	Approved	View
Verified	Rejected	View




AEDMS

Search

20+

AO

- Dashboard
- Emissions Monitoring Plan
- Emissions Report
- Emissions Data
  - Form C
  - Form M

### Latest Emissions Report

+ Add New

This is your latest emission report. (

S No.	Verification Body
1	Bureau Veritas

### Previous Years Emissions

These are your previous emission reports.

S No.	Verification Body
1	TÜV SÜD
2	Eurofins
3	Intertek
4	ALS Limited
5	SGS
6	Bureau Veritas

### Emissions Report

Year: 2022

Verification Body: ALS Limited

Reporting Method: Method-A

CO2 Emissions: 10,000

Submission Date: Jul 11, 2023

Status: Submitted to State

**Verified Emissions Report**

Verified Emissions Report.xlsx Download

**Verification Report**

Verification Report.docx Download

**Remarks**

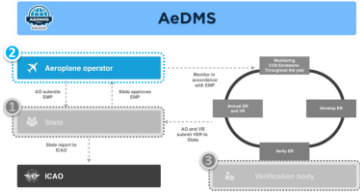
Our Emission Report has been verified by Verification Body, confirming the accuracy of the data presented. We remain committed to reducing our carbon footprint and are.... [See More](#)

Cancel
Submitted

Verification Body	State Authority	Action
Pending	Pending	<a href="#">View</a>

Verification body	State Authority	Action
Verified	Approved	<a href="#">View</a>
Verified	Approved	<a href="#">View</a>
Verified	Approved	<a href="#">View</a>
Verified	Rejected	<a href="#">View</a>
Verified	Approved	<a href="#">View</a>
Verified	Rejected	<a href="#">View</a>



AEDMS

20+
AO

- Dashboard
- Emissions Monitoring Plan
- Emissions Report
- Emissions Data
  - Form C
  - Form M

## Latest Emissions Report

+ Add New

This is your latest emission report. (4)

S No.	Verification Body
1	Bureau Veritas

### Previous Years Em

These are your previous emission re

S No.	Verification Body
1	TÜV SÜD
2	Eurofins
3	Intertek
4	ALS Limited
5	SGS
6	Bureau Veritas

### Emissions Report

Year: 2022

Verification Body: ALS Limited

Reporting Method: Method-A

CO2 Emissions (tons): 10,000

Submission Date: Jul 11, 2023

Status: Rejected by State

**Aeroplane Operator Files**

- Emissions Report.xlsx ↓ Download
- Consent File.docx ↓ Download

**Remarks**

We are committed to reducing our carbon footprint and have made significant progress as highlighted in the Emission Report. Our focus on renewable energy and innovative Solu.... [See More](#)

**Verification Body Files**

- Verified Emission Report.xlsx ↓ Download
- Verification Report.docx ↓ Download

**Remarks**

We are committed to reducing our carbon footprint and have made significant progress as highlighted in the Emission Report. Our focus on renewable energy and innovative Solu.... [See More](#)

**Remarks by State Authority**

Our Emission Report has been verified by Verification Body, confirming the accuracy of the data presented. We remain committed to reducing our carbon footprint and are.... [See More](#)

Cancel
Submitted

Verification Body	State Authority	Action
Pending	Pending	<a href="#">View</a>

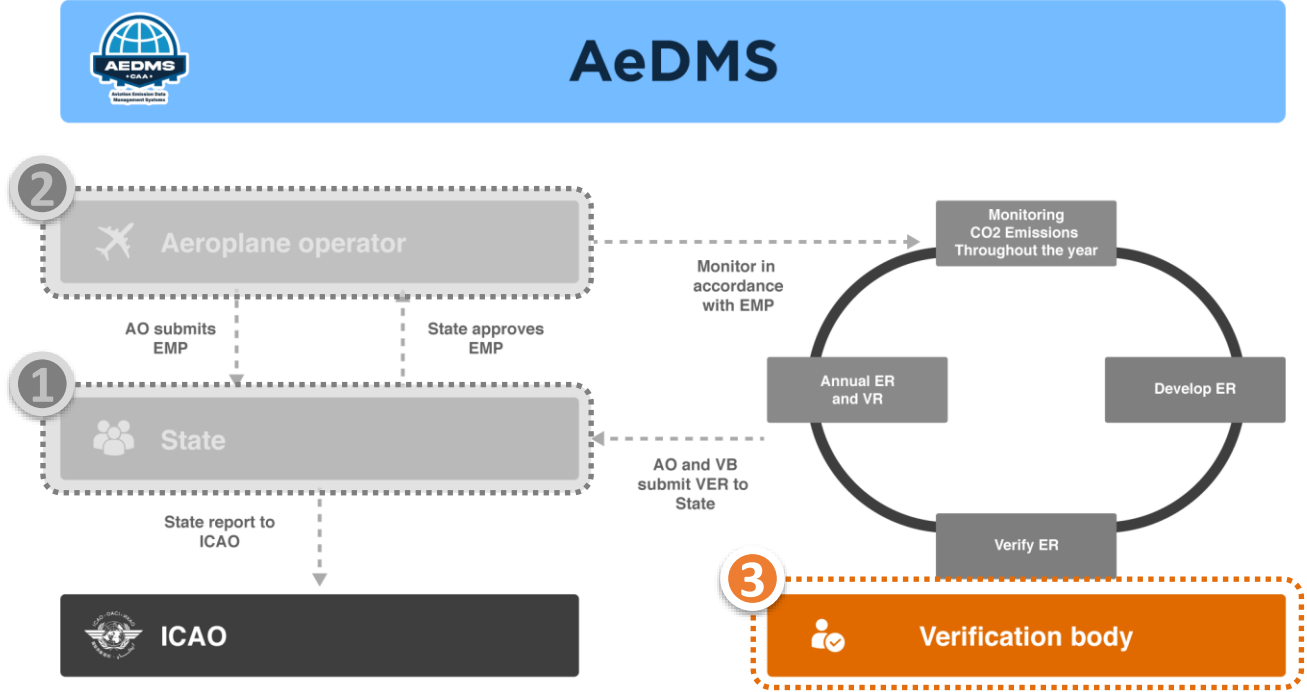
Verification body	State Authority	Action
Verified	Approved	<a href="#">View</a>
Verified	Approved	<a href="#">View</a>
Verified	Approved	<a href="#">View</a>
Verified	Rejected	<a href="#">View</a>
Verified	Approved	<a href="#">View</a>
Verified	Rejected	<a href="#">View</a>

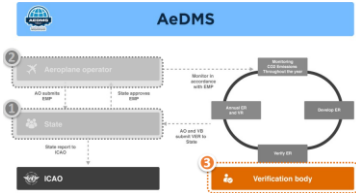
# Outlines

- Brief overview of AeDMS
- Benefits of AeDMS
- Overview of the Project Development Phases
- **AeDMS System Mockups**
  - Roles and Sign-in
  - AeDMS roles of State
  - AeDMS roles of Aeroplane Operator
  - **AeDMS roles of Verifying Body**



# AeDMS Platform User





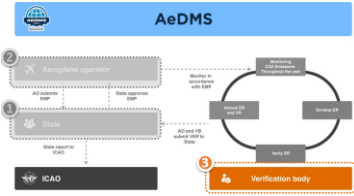
AEDMS

28+ Jane Cooper

Dashboard
Emissions Report

## Emissions Report

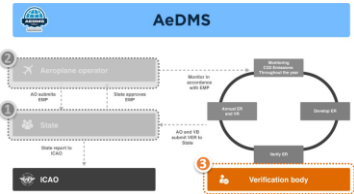
Airline Name	Attribution State	Compliance Year	Required Date	Status	
Ethiopian Airlines	Ethiopia	2020	Mar 02, 2023	Unverified	<a href="#">View</a> <a href="#">Take Action</a>
Air Mauritius	Mauritius	2019	Sep 27, 2022	Verified	<a href="#">View</a>
Air Link	South Africa	2018	Aug 27, 2023	Unverified	<a href="#">View</a> <a href="#">Take Action</a>
Mango	South Africa	2017	Nov 16, 2022	Unverified	<a href="#">View</a> <a href="#">Take Action</a>
TAANG Angola Airlines	Angola	2016	Dec 18, 2022	Verified	<a href="#">View</a>
Kenya Airways	Kenya	2020	Jan 31, 2023	Verified	<a href="#">View</a>



The screenshot shows the AEDMS 'Emissions Report' interface. A modal window titled 'Emission Report Verification' is open, displaying details for Darnell Carpenter from Angola, compliance year 2020, and a status of 'Unverified'. The modal includes download links for 'Emission Report.xlsx' and 'Consent File.docx', a 'Remarks by AO' section with a 'See More' link, and 'Cancel', 'Reject', and 'Verify' buttons.

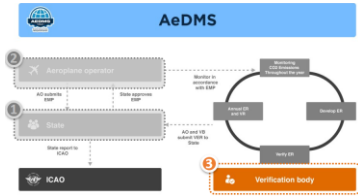
Airline Name	Attribution State	Compliance Year	Reporting Date	Status	View	Take Action
Ethiopian Airlines				Unverified	View	Take Action
Air Mauritius				Verified	View	
Air Link				Unverified	View	Take Action
Mango				Unverified	View	Take Action
TAANG Angola Airlines				Verified	View	
Kenya Airways				Verified	View	





The screenshot shows the AEDMS interface. The main page displays an 'Emissions Report' table with columns for Airline Name, Attribution State, Previous Year, Current Year, and Status. A modal window titled 'Emission Report Verification' is open, showing details for a report from Darnell Carpenter in Angola for the year 2020, dated Mar 02, 2021. The status is 'Unverified'. The modal includes sections for uploading a 'Verified Emissions Report' and a 'Verification Report', both with file selection buttons and supported format information (Xls, Xlsx, or CSV for emissions; Docx, Doc, or Pdf for verification). It also features a 'Your Remarks' text area and 'Back' and 'Submit' buttons.

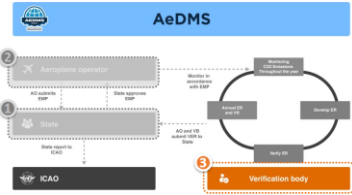
Airline Name	Attribution State	Previous Year	Current Year	Status
Ethiopian Airlines				Unverified
Air Mauritius				Verified
Air Link				Unverified
Mango				Unverified
TAANG Angola Airlines				Verified
Kenya Airways				Verified



The screenshot shows the AEDMS 'Emissions Report' interface. A modal window titled 'Emission Report Verification' is open, displaying the following details:

- Operator Name: Darnell Carpenter
- Attribution State: Angola
- Compliance Year: 2020
- Date: Mar 02, 2023
- Status: Unverified

Below the details, there is a confirmation prompt: ⊗ Are you sure to Reject this Report? This is followed by a section for 'Your Remarks' with a text input field containing 'Add comments' and a character count of '0 / 100'. At the bottom of the modal are two buttons: 'Back' and 'Reject'.



The screenshot shows the AEDMS 'Emissions Report' interface. A modal window titled 'Emission Report Verification' is open, displaying the following details:

- Operator Name: Darnell Carpenter
- Attribution State: Angola
- Compliance Year: 2020
- Required Date: Mar 02, 2023
- Status: Verified

The modal also lists files for download:

- Airline Operator Files:**
  - Emission Report.xlsx (Download)
  - Consent File.docx (Download)
- Verified Files:**
  - Verified Emissions Report.xlsx (Download)
  - Verification Report.docx (Download)

At the bottom of the modal, there is a 'Your Remarks' section with the text: 'We are committed to reducing our carbon footprint and have made significant progress as highlighted in the Emission Report. Our focus on renewable energy and innovative Solu... See More'. Below the remarks are 'Back' and 'Submitted' buttons.

# Thank you for your attention

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**Working for quieter and cleaner aviation.  
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# Your Expert Team



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