



AW DRONES

The AW-Drones Open Repository

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Online repository that will provide single point of access to relevant information about:

- rules, procedures and technical standards developed for mass-market drones worldwide;
- best practices, gaps and bottlenecks;
- technical standard for each category of drone operations;

Support the **European Aviation Safety Agency (EASA)** and the **European Commission (EC)** in their rulemaking process for the definition of rules, technical standards and procedures for civilian drones.

*The **mid-term aim** of the open repository is to become a **relevant drone-focused informative tool** where experts can easily **identify relevant information** and contribute to the extension of the AW-Drones database.*

AW-Drones repository will also include **collaboration features** (commenting, rating, adding and editing content, reviewing etc.) that will enhance its use and purpose and will further support its sustainability even after the end of the AW-Drones project.

✓ Institutional bodies:

- ✓ EU and EC: DG-INEA, DG-MOVE;
- ✓ European Joint Undertakings (e.g. SESAR, Clean-Sky);
- ✓ Regulatory and safety agencies: ICAO, EASA and National CAAs, JARUS;
- ✓ Standard-making bodies: EUSCG, ISO, EUROCAE, ASTM, RTCA, ASD-STAN;
- ✓ National bodies: National Ministries of Transport, National Agencies.

✓ Specialised audience:

- ✓ Research community (Research and Innovation (R&I) institutes; Universities; Private research companies;)
- ✓ Industry (Drone manufacturers and maintainers; Drone operators; Drone Pilots; ANSPs; UTM/U-Space Service Providers; Industrial associations;
- ✓ Training Institutes.

✓ General stakeholders:

- ✓ General public;
- ✓ Media.

Define the **requirements** for the design and development of a user-friendly knowledge platform that will be open to all stakeholders (*Jan 2019 – Oct 2019*)

Develop the online platform based on the requirements gathered (*Nov 2019 – Dec 2021*)

Assist in **engaging with key stakeholders** in the mass market drone industry (*Nov 2019 – Dec 2021*)

- ✓ **Find and display a standard:** Provide easy access to information stored in the AW-Drones repository via:
 - ✓ **Live search**
 - ✓ **Filters** (Requirement, Domain, keywords, Type of data of the standard, status of the standard)
- ✓ **Collaboration features:**
 - ✓ **Commenting:** registered users can leave comments under every dataset and can initiate discussions.
 - ✓ **Rating:** registered users can rate the content of a standard.
 - ✓ **Tagging:** registered users can add new tags to a specific standard.
 - ✓ **Editing content and versioning:** registered users will be able to edit the content of a dataset. A history of all revisions will be kept.
 - ✓ **Adding content:** registered users will be able to add new standards to the database.

- ✓ **Administrators:** Add and remove content; accept changes; accept comments; change the structure of the datasets etc.
- ✓ **Editors:** Registered users (their registration must be accepted by the Administrators). Add content to the repository; Add comments; Rate datasets; Add keywords. The content needs to be accepted by the Administrators. A notification will be sent to editors when their content is published.
- ✓ **Acknowledged users:** access to the collaboration features of the platform (comment, rate, add keywords etc.). They cannot add new content to the AW-Drones database.
- ✓ **Basic users:** Any user with access to the internet will be able to view the content of the repository.

- ✓ **Develop** the AW-Drones open repository in 2 iterations (M18 - M36)
- ✓ **Validate** the open repository
- ✓ **Disseminate** and **exploit** the AW-Drones open repository / **engage users**



Progress so far:

- ✓ Defined the **requirements** for the design and development of the platform
- ✓ First version of the AW-Drones repository **developed** based on the requirements gathered / Feedback from a) EUSCG plenary session, b) AW-Drones consortium, c) INEA already received.

Next steps:

- ✓ Gather further feedback and improve the repository
- ✓ Make the repository public
- ✓ **Assist** in **engaging with key stakeholders** in the mass market drone industry

The AW-Drones repository



Temporary url: <https://drones.ortelio.co.uk>

Homepage

AW DRONES

Home About

Home / Home

Filters

Requirements

Choose a domain

- General 31
- Initial Airworthiness (at UAS level) 464
- Continuing Airworthiness 12
- UAS Operations 55
- Aerodromes 2
- U-Space/ATM 22
- Environment 2
- Personnel 20
- Oversight 6

Welcome to AW-Drones repository

This is the AW-Drones open repository of technical standards and "best practices".

Search standards

Keywords

- Systems & Equipment (151)
- Electrical System (87)
- Software Development Assurance (59)
- Design & Construction (33)
- Detect and Avoid (30)
- Navigation (28)
- Systems safety assessment (25)
- Standard Scenarios (22)
- Lights (20)
- Emergency capabilities & Health monitoring (19)
- Remote Pilot Competence (18)
- Operations (16)
- Deficiency (15)
- Electromagnetic Compatibility and Interference Protection (12)

All keywords ↓

Standards (654 results)

1 2 3 4 5 6 7 8 ... 40 41

UAS Propulsion System Terminology

Organization: SAE E-39 Unmanned Aircraft Propulsion Committee
Document N°: AS####
Status: planned

READ MORE

New Standard Terminology for Unmanned Aircraft Systems

Organization: ASTM F38 Unmanned Aircraft Systems
Document N°: ASTM WK62416
Status: ongoing

READ MORE

Requirements for the categorization and classification of civil UAS

Organization: ISO TC20 / SC16 / WG1
Document N°: ISO 21895
Status: published

READ MORE

General requirements for UAS for civil and commercial applications, UAS terminology and classification

Organization: ISO TC20 / SC16 / WG1
Document N°: ISO 21384-1
Status: deleted

Filtering by Requirements

The screenshot shows the AW DRONES repository website. The browser address bar displays 'drones.ortelio.co.uk'. The website header includes the 'AW DRONES' logo and navigation links for 'Home' and 'About'. A breadcrumb trail shows 'Home'. On the left, a 'Filters' sidebar lists requirements from 'OSO 01' to 'OSO 10', with 'OSO 04' highlighted by a red oval. The main content area features a 'Welcome to AW-Drones repository' message, a search bar, and a 'Keywords' section with filters for 'Definitions (3)', 'Classification of drones (1)', 'Manuals (1)', and 'Marking and Registration (1)'. Below this is a 'Standards (654 results)' section with a pagination control showing page 1 of 41. Two standard cards are visible: 'UAS Propulsion System Terminology' and 'New Standard Terminology for Unmanned Aircraft Systems', each with details for organization, document number, and status, and a 'READ MORE' button.

AW DRONES

Home About

Home / Home

Filters

Requirements

- OSO 01
- OSO 02
- OSO 03
- OSO 04**
- OSO 05
- OSO 06
- OSO 07
- OSO 08
- OSO 09
- OSO 10

Welcome to AW-Drones repository

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Search standards

Keywords

- Definitions (3)
- Classification of drones (1)
- Manuals (1)
- Marking and Registration (1)

Standards (654 results)

1 2 3 4 5 6 7 8 ... 40 41

UAS Propulsion System Terminology

Organization: SAE E-39 Unmanned Aircraft Propulsion Committee

Document N°: AS####

Status: planned

READ MORE

New Standard Terminology for Unmanned Aircraft Systems

Organization: ASTM F38 Unmanned Aircraft Systems

Document N°: ASTM WK62416

Status: ongoing

READ MORE

Filtering by domain

The screenshot shows the 'AW DRONES' repository website. On the left, a 'Filters' sidebar is visible with a 'Requirements' dropdown menu. Under 'Choose a domain', several options are listed with checkboxes and counts: General (31), Initial Airworthiness (at UAS level) (464), **UAS Operations (55)** (highlighted with a red circle), Aerodromes (2), U-Space/ATM (22), Environment (2), Personnel (20), and Oversight (6). A 'STANDARDS 55' button is at the bottom of the sidebar. The main content area features a 'Welcome to AW-Drones repository' message, a search bar, and a 'Keywords' section with tags for Standard Scenarios (7), Marking and Registration (3), E-Identification (2), Geo-awareness (2), and Manuals (1). Below this, a 'Standards (55 results)' section displays a grid of document cards. Each card includes a title, organization, document number, status, and a 'READ MORE' button. The cards shown are: 'Small Unmanned Aerial Systems Serial Numbers' (CTA R6, published), 'MASPS for UAS e-identification' (EUROCAE WG-105, ongoing), 'MOPS for UAS e-identification' (EUROCAE WG-105, planned), and 'Practice for the Registration and Marking of Unmanned Aircraft Systems' (ASTM F38, planned).

Filter by Requirements and Domain

The screenshot shows the AW DRONES repository website. The browser address bar displays the URL: `drones.ortelio.co.uk/?requirements=4&domains%5B%5D=4`. The website header includes the logo "AW DRONES" and navigation links for "Home" and "About".

Filters

Clear all

OSO 04

Choose a domain

- General 1
- Initial Airworthiness (at UAS level) 16
- Continuing Airworthiness 0
- UAS Operations 1
- Aerodromes 0
- U-Space/ATM 0
- Environment 0
- Personnel 0
- Oversight 0

STANDARDS 1

Welcome to AW-Drones repository

This is the AW-Drones open repository of technical standards and "best practices".

Search standards

Keywords

- Marking and Registration (1)

Standards (1 result)

Small Unmanned Aerial Systems Serial Numbers

Organization: CTA R6 Portable Handled and In-Vehicle Electronics Committee WG 23 Unmanned Aerial Systems

Document N°: ANSI/CTA - 2063

Status: published

READ MORE

Keyword selection

The screenshot shows the AW DRONES repository website. The browser address bar displays 'drones.ortelio.co.uk'. The website header includes the 'AW DRONES' logo and navigation links for 'Home' and 'About'. A breadcrumb trail shows the user is on the 'Home' page.

Filters

Requirements

Choose a domain

- General 31
- Initial Airworthiness (at UAS level) 464
- Continuing Airworthiness 12
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- Oversight 6

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- Standard Scenarios (22)
- Lights (20)
- Emergency capabilities & Health monitoring (19)
- Remote Pilot competence (18)
- Cyber-security (16)
- Definitions (15)
- Electromagnetic Compatibility and Lightning Protection (12)
- Command and Control (C2) Link (12)
- Remote Pilot Station (10)
- Flight Control System (10)
- UAS-ATM (IFR above VLL and below FL 600) (10)
- Classification of UAS operations (10)
- Manuals (9)
- Structures (9)
- Propulsion (9)
- Organization (9)
- Instruments (9)
- Level of Automation/Autonomy (7)
- UAS Operator (7)
- Tracking (7)
- E-Identification (6)
- Classification of drones (5)
- Flight performance (5)
- Airborne Electronic Hardware (AEH) Development Assurance (5)
- Notified bodies and Qualified Entities (5)
- Instructions for continued airworthiness (4)
- Geo-awareness (4)
- Marking and Registration (3)
- Fuel (3)
- Maintenance & Inspection (3)
- Physical Security (3)
- U-Space Service Providers (3)
- Accident/Incident investigation (1)
- UAS Maintenance personnel competence (1)
- Privacy and data protection (1)
- Risk Assessment (Operations) (1)
- Take-off/Landing zones (urban vertiports) (1)
- Ground Handling Service (1)
- Aircraft Noise Emission (1)
- Aircraft gaseous emissions (1)
- Instructors (1)
- Training organizations (1)
- Traffic surveillance (tracking) (1)
- Environmental qualification of Equipment (Ground and Airborne) (1)

[All keywords ↓](#)

Standards (654 results)

1 2 3 4 5 6 7 8 ... 40 41

UAS Propulsion System Terminology

New Standard Terminology for Unmanned Aircraft Systems

Search with autocomple

The screenshot shows a web browser window with the URL `drones.ortelio.co.uk/?requirements=4`. The website header features the "AW DRONES" logo and navigation links for "Home" and "About". A breadcrumb trail shows the user is on the "Home" page.

On the left, there is a "Filters" sidebar with a "Clear all" link and a dropdown menu set to "OSO 04". Below this, a "Choose a domain" section lists various categories with checkboxes and counts: General (1), Initial Airworthiness (at UAS level) (16), Continuing Airworthiness (0), UAS Operations (1), Aerodromes (0), U-Space/ATM (0), Environment (0), Personnel (0), and Oversight (0). A teal button at the bottom of the sidebar displays "STANDARDS 18".

The main content area has a large heading "Welcome to AW-Drones repository" and a sub-heading "This is the AW-Drones open repository of technical standards and 'best practices'". Below this is a search bar with the placeholder text "Search standards" and the search term "Terrestri" entered. The search bar is circled in red. An autocomplete dropdown menu is open, showing several suggestions:

- Requirements for a Terrestrial Based Position, Navigation, and Timing (PNT) System to Improve Navigation Solutions and Ensure Critical Infrastructure Security
- Requirements for a Terrestrial Based Positioning, Navigation, and Timing (PNT) System to Improve Navigation Solutions and Ensure Critical Infrastructure Security
- MOPS for RPAS C2 Data Link (Terrestrial)
- Unmanned Aircraft Systems Control and Non-Payload Communications Terrestrial Link System Radios
- Command and Control (C2) Data Link Minimum Operational Performance Standard (MOPS) (Terrestrial)

Below the search bar, there are sections for "Keywords" (with a dropdown for "Definitions (1)") and "Standards" (with a dropdown for "Small Unmanned Aerial"). A table of search results is partially visible, showing columns for "Organization:", "Document N°:", and "Status:". A teal "READ MORE" button is located at the bottom of the search results area.

drone.ortelio.co.uk/standard/7

MASPS for UAS e-identification

Details

Type:	Standard	Domain:	UAS Operations
Document N°:		Keywords:	- E-Identification
Status:	ongoing		
Organization:	EUROCAE WG-105		

Description

"Minimum Aviation Systems Performance Standard for UAS e-identification" defining minimum system level end-to-end requirements for the implementation of the electronic identification function for UAS.

SORA

Requirement: OSO 01 (Ensure the operator is competent and/or proven)

Criteria: Criterion 1

Robustness:

Integrity			Assurance		
Low	Medium	High	Low	Medium	High
Full	Full	Full		Full	Full
This is a gap for integrity			This is a gap for assurance		

Requirement: OSO 07 (Inspection of the UAS (product inspection) to ensure consistency to the ConOps)

Criteria: Criterion 1

Robustness:

Integrity			Assurance		
Low	Medium	High	Low	Medium	High
Full	Full		Full	Full	
This is a gap for integrity			This is a gap for assurance		

Description

"Minimum Aviation Systems Performance Standard for UAS e-identification" defining minimum system level end-to-end requirements for the implementation of the electronic identification function for UAS.

SORA

Requirement: OSO 01 (Ensure the operator is competent and/or proven)

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Robustness:

Integrity		
Low	Medium	High
Full	Full	Full
This is a gap for integrity		

Assurance		
Low	Medium	High
	Full	Full
This is a gap for assurance		

Requirement: OSO 07 (Inspection of the UAS (product inspection) to ensure consistency to the ConOps)

Criteria: Criterion 1

Robustness:

Integrity		
Low	Medium	High
Full	Full	
This is a gap for integrity		

Assurance		
Low	Medium	High
Full	Full	
This is a gap for assurance		

Last modified by: Admin, 2020-07-18 22:26:07

Comments

0 Comments

Submit a Comment

For each standard the following information is displayed:

1. Title
2. Document No
3. Organisation
4. Status
5. External url and DOI (if available)
6. Domain
7. Keywords
8. Description
9. Requirements
10. Last modified



User login

The image shows a web browser window displaying the login page for AW DRONES. The browser's address bar shows the URL `drones.ortelio.co.uk/login`. The page header features the AW DRONES logo on the left and navigation links for "Home" and "About" on the right. The main content area is a white box containing the login form. At the top of this box is the AW DRONES logo. Below it, the word "Login" is displayed. The form consists of two input fields: "Email" with a user icon and "Password" with a lock icon. Below these fields is a checkbox labeled "Remember me". At the bottom left of the form is a blue "LOGIN" button, and at the bottom right is a link for "FORGOT YOUR PASSWORD?". The footer of the page is dark blue and contains the European Union flag, a text notice about funding from the Horizon 2020 programme, and social media icons for LinkedIn and Twitter.



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User registration

AW DRONES

Home About

Register

Name

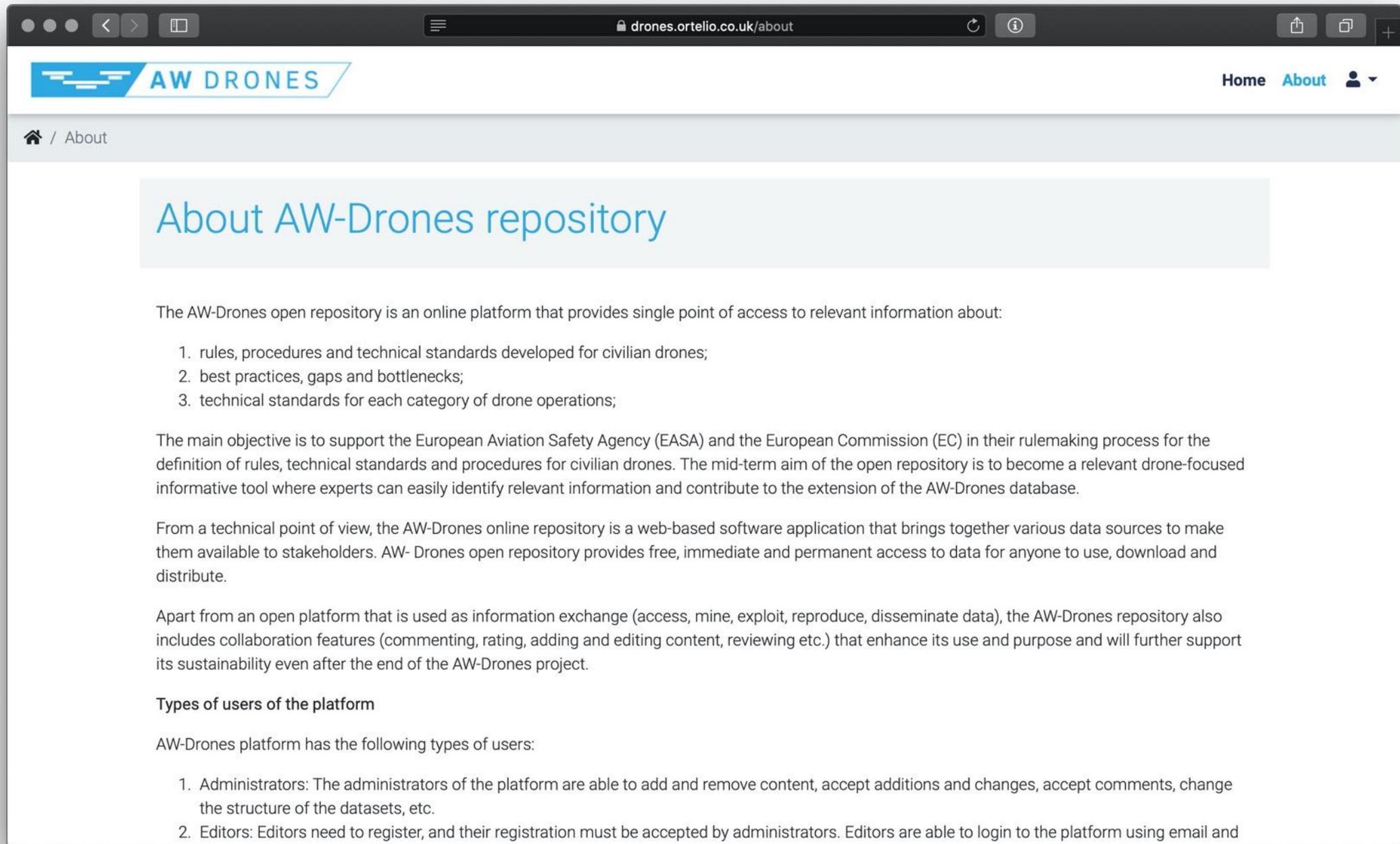
Email

Password

Password Confirmation

I agree to the [Terms & Conditions](#)

REGISTER



The screenshot shows a web browser window with the URL `drones.ortelio.co.uk/about`. The page header features the AW Drones logo on the left and navigation links for 'Home' and 'About' on the right. Below the header, a breadcrumb trail shows 'Home / About'. The main content area has a light blue background with the title 'About AW-Drones repository'. The text describes the repository as an online platform for drone-related information, listing its objectives and technical details. It also mentions collaboration features and user types.

AW DRONES

Home About

Home / About

About AW-Drones repository

The AW-Drones open repository is an online platform that provides single point of access to relevant information about:

1. rules, procedures and technical standards developed for civilian drones;
2. best practices, gaps and bottlenecks;
3. technical standards for each category of drone operations;

The main objective is to support the European Aviation Safety Agency (EASA) and the European Commission (EC) in their rulemaking process for the definition of rules, technical standards and procedures for civilian drones. The mid-term aim of the open repository is to become a relevant drone-focused informative tool where experts can easily identify relevant information and contribute to the extension of the AW-Drones database.

From a technical point of view, the AW-Drones online repository is a web-based software application that brings together various data sources to make them available to stakeholders. AW- Drones open repository provides free, immediate and permanent access to data for anyone to use, download and distribute.

Apart from an open platform that is used as information exchange (access, mine, exploit, reproduce, disseminate data), the AW-Drones repository also includes collaboration features (commenting, rating, adding and editing content, reviewing etc.) that enhance its use and purpose and will further support its sustainability even after the end of the AW-Drones project.

Types of users of the platform

AW-Drones platform has the following types of users:

1. Administrators: The administrators of the platform are able to add and remove content, accept additions and changes, accept comments, change the structure of the datasets, etc.
2. Editors: Editors need to register, and their registration must be accepted by administrators. Editors are able to login to the platform using email and

Dashboard

The screenshot shows a web browser window with the URL `drones.ortelio.co.uk/admin/home`. The page features a dark sidebar on the left with navigation links: Dashboard, User management, UAS Standards, Affected SORA, and Domains. The main content area is titled "Dashboard" and contains four data cards:

Category	Count
Requirements	24
Users	2
Standards	654
Domains	9

Each card includes an icon: a blue square with 'AD' for requirements, a green square with a person icon for users, a dark square with a document icon for standards, and a red square with a folder icon for domains.

Insert new Standard 1/2

Not Secure — 55cdaf66.ngrok.io/admin/standards/create

Admin ▾

AW DRONES

Dashboard

User management <

UAS Standards ▾

All UAS Standards

+ Add new

Affected SORA <

Domains <

Standard Info Coverage Review

Insert Standard

Title*

SDO*

Doc. Reference*

Description*

Content..

Requirement

Please select ▾

Domain

Please select ▾

Tags* [Select all](#) [Deselect all](#)

Next step

Insert new Standard 2/2

Not Secure — 55cdaf66.ngrok.io/admin/standards/step2

Admin ▾

AW DRONES

Dashboard
User management <
UAS Standards <
Affected SORA <
Domains <

Standard Info Coverage Review

OSO 01 - Ensure the operator is competent and/or proven

Standard: Standard Practice for Operational Risk Assessment of Small Unmanned Aircraft Systems (sUAS)

Reference: F3178-16

Criteria 1 - Integrity

Low Select Score

Medium Select Score

High Select Score

Notes

Criteria 1 - Assurance

Low Select Score

Medium Select Score

High Select Score

Notes

Back to Standard info Save

List of standards

AW DRONES

Frontpage Admin

Standards

Name	Title	Status	Actions
UAS Propulsion System Terminology	AS####	planned	
New Standard Terminology for Unmanned Aircraft Systems	ASTM WK62416	ongoing	
Requirements for the categorization and classification of civil UAS	ISO 21895	published	
General requirements for UAS for civil and commercial applications, UAS terminology and classification	ISO 21384-1	deleted	
New Practice for General Operations Manual for Professional Operator of Light Unmanned Aircraft Systems (UAS)	ASTM WK62744	ongoing	
Small Unmanned Aerial Systems Serial Numbers	ANSI/CTA - 2063	published	
MASPS for UAS e-identification		ongoing	
MOPS for UAS e-identification		planned	
New Specification for Service provided under UAS Traffic Management (UTM)	ASTM WK63418	planned	

Thank you!

Ilias Trochidis (it@ortelio.co.uk)

Stratos Arampatzis

Panagiotis Chatzikamaris

