

# UAS: The Global Perspective - Upcoming 20<sup>TH</sup> Edition (2025) INCLUDE or UPDATE YOUR ENTRY FREE-OF-CHARGE

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Producer

Country	
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UAS Name / Designation

Usage (See page 2)	O Aerial Work O Cargo Transport O Passenger Transport O Gvmt & Military
Status	O ConceptualO In DevelopmentO ExperimentalO PrototypeO Market Ready / In ProductionO Research ProjectO Demonstrator
Airframe Type	<ul> <li>Fixed Wing (capable of flight by using the aerodynamic lift generated by its wings)</li> <li>Fixed Wing with Lift Rotors (rotors positioned on arms, wings, tail or booms)</li> <li>Lighter-than-Air (airships, dirigibles, flying object)</li> <li>No Wings / No Rotors (e.g. fuselage or pod with integrated ducted fans or vectoring jet nozzles)</li> <li>Ornithopter (flapping wings)</li> <li>Rotorcraft (derives its source of lift from rotor blades rotating around an axis)</li> <li>Transwing (wing folds &amp; tilts &amp; permits in-flight transitioning)</li> <li>Tilt Wing (wing is horizontal for conventional forward flight and rotates up for VTOL)</li> </ul>
VTOL	Vertical take-off & landing capable O Yes O No
Rotorcraft Class (See page 3 for explanation of terms pictographs)	O       Bicopter       O       Birotor Coaxial       O       Birotor Intermeshing         O       Gyroplane       O       Monocopter       O       Motorized Parafoil         O       Multicopter (>2 & <10 lift rotors)       O       Pluricopter (10 lift rotors & more)         O       Quantity lift rotors       O       Quantity lift rotors         O       Quantity puller rotors       O       Quantity puller rotors         O       Tandem Ducted Rotors       O       Tandem Rotor       Tailsitter
	Tether:  Standard  Optional
Propulsion	O Electric O Hybrid O Jet / Turbine O Piston O Other
Fuel / Energy	OAvgasOBatteryOFuel CellOGasolineOHeavy FuelONitrogenOSolar PanelO2-StrokeO4-StrokeOOtherNote:Heavy Fuel = Diesel, Jet Fuel (Jet A1, JP5, JP8), Kerosene
Command & Contro	Image: Omega and the second state of the second state o
Control Range	○ <0,2 km ○ 2 km ○ 25 km ○ 50 km ○ 75 km ○ 150 km ○ >150 km
Flight Endurance	minutes km Note: Please fill in both boxes
Max. Cruise Speed	km/h
Max.Take-Off Weigh	t kg
Principal Mission Payload	O ImagingO Sensing & MeasurementO Other (Non-military)(See page 4 for explanation of terms & examples)O Other (Military)
Payload Capacity	kg Total weight of the payload [( <i>Imaging, Sensing &amp; Measuremernt, Other</i> ), <i>cargo, pilot, passengers &amp; luggage</i> ], that can be accommodated.
	Principal payload is aircraft specific & factory-integrated       O       Yes       O       No         Quantity of passengers that can be transported ( <i>in addition to pilot</i> )
Submission	Date
Submitter O Mr O	Ms First Name Family Name
	Email Tel.
Comment	

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## **DEFINITIONS & EXPLANATIONS RELATIVE TO THE SUBMISSION FORM**



## UAS USAGE

#### **Aerial Work**

#### **Commercial & Non-Commercial**

(Including Corporate Operations: Operations conducted by a corporate entity for its own purposes)

An aircraft operation in which an aircraft is used for specialized (flight) services such as agriculture, construction, photography, surveying, observation & patrol, search & rescue, aerial advertisement, etc. (Chicago Convention, Annex 6 Part 1, Chapter 1.H9)

#### **Flight Training / Instruction**

(Commercial & Corporate operations)

- **Duo** (student instruction by licensed pilot)
- Solo (unaided student flight)
- Check (qualification verification of pilot license holder)

#### **Other Miscellaneous**

- Tost / Exporimontal - Domonstration	
- Test / Experimental - Demonstration	

- Ferry / Positioning - Air Show / Race

**Cargo Transport** 

Commercial & Non-Commercial (incl. Corporate)

Scheduled & Non-scheduled

- Internal Loads (inside the airframe)
- External Loads (outside the airframe)

## **Passenger Transport**

Commercial & Non-Commercial (incl. Corporate) Scheduled & Non-scheduled

#### **Governmental & Military Flight Operations**

### **Governmental Flight Operations**

Security-related

- Coast Guard

- Border Guards - Civil Protection
  - Fire-fighters

Safety-related

- Customs - Gvmt executive agency
- Police (municipal, national, federal)

#### **Military Flight Operations**

- Air Force - Army - Gendarmerie
  - Navy

#### **Regional & International Organisations**

- **European Commission Agencies, e.g.:**
- Border & Coast Guard Agency (FRONTEX)
- European Maritime Safety Agency (EMSA)
- International Criminal Court (ICC)

Interpol

**United Nations (UN) Agencies** 

## UAS & RPAS - Definitions

The following terms & explanations, indicated in ICAO Circular 326, are used in this document.

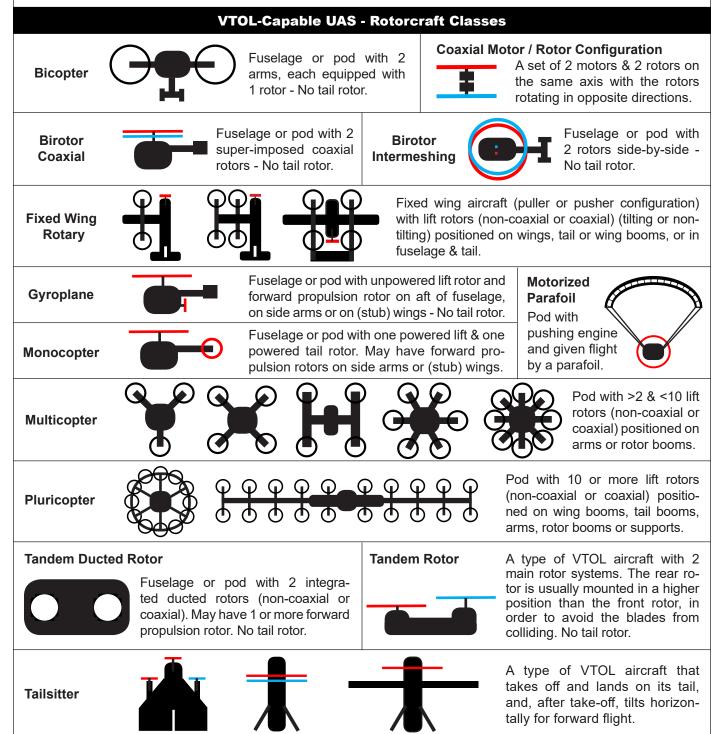
Unmanned aircraft system (UAS) is an aircraft and its associated elements which is operated with no pilot on board.

**Unmanned aircraft (UA)** is any aircraft intended to be flown without a pilot on board. They can be remotely and fully controlled from another place (ground, another aircraft, space) or pre-programmed to conduct its flight without intervention (automatic).

**Remotely-piloted aircraft system (RPAS)** is a set of configurable elements consisting of a remotely piloted aircraft (RPA), its associated remote pilot station(s), the required command and control links and any other system elements as may be required at any point during flight operation (e.g. launch & recovery systems). (Note: RPAS is a subcategory of UAS).

**Remotely piloted aircraft (RPA)** is an aircraft where the flying pilot is not on board the aircraft. A RPA is piloted from a Remote Pilot Station and is expected to be integrated into the air traffic management system equally as manned aircraft, [and] real-time piloting control is provided by a licensed Remote Pilot.

Note: The abbreviations UAS, RPAS, UA and RPA are invariable (singular & plural are identical).



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## UAS Payloads

Payloads are elements installed on an unmanned aircraft (UA) and are not necessary for flight, but are carried for the purpose of achieving specific mission objectives. 3 Payload categories: • Imaging

- Sensing & Measurement
  - Other: - Non-military

- Military

## Imaging Payloads (Civ & Mil)

Elements on an unmanned aircraft (UA) permitting the capture of imagery (possibly with simultaneous tracking) and the recording or transmission of such data. Imaging payloads (gimballed & non-gimballed) include, amongst others: Corona Effect Imager **Digital Photo Camera Digital Video Camera** Electric-Optical (EO) Film Camera Flash LiDAR Forward-looking infra-red (FLIR) Hyperspectral Infrared (IR) Light Detection and Ranging (LiDAR) Laser Scanner Light Intensification Line Scanner Multi-Layer Laser Multispectral - Optical Multispectral - Thermal Near Infra-red Radar Radar - Ground Penetrating Radar - Maritime Solid State Photon Counter Synthetic Aperture Radar (SAR)

## Sensing & Measurement Payloads (Civ & Mil)

Elements on an unmanned aircraft (UA) permitting the capture of non-imagery data and the recording or transmission of such data. They include, amongst others: Aerial pollution measurement device Anemometer Atmospheric measurement device Atmospheric pollutant detector Bathymetric measurement device Camera mounts & gimbals Data recorder Electricmagnetic measurement device Emergency beacon detector Frequency measurement device Gas (leak) detector Geomagnetic measurement device Gimbal mount Hydrographic measurement device Interferometry Laser pointer / range finder Location (static & moving) definition: Flora & Fauna
 Object
 Person
 Phenomena Measurement probe / feeler Metal detector Meteorological measurement device Microwave radiometer Mineral detector

Moving target indicator Nuclear, radiological, biological & chemical (NRBC) detector Odour detector Particle measurement device Phenomena analysis Radiation meter Spectrometer Radio frequency spectrum analyser Ultrasonic analysis device Ultraviolet sensor

## **Other Payloads**

Elements on a unmanned aircraft (UA) permitting to achieve specific non-imagery, non-sensing & nonmeasing mission objectives. They are split into 2 categories and include:

### **Non-Military**

Airborne data recorder Cable (lead) stringing grip Cargo hoisting & lowering winch Cargo (net) sling & hook Cargo storage container / rack (internal & external) Communication relay (incl. antennae) Dispensing system (solids): • Bulk (e.g. fertilizer pellets, granulates, larvae capsules, pollination agents, seeds) Other (e.g. seedlings) Fire extinguishing system (incl. discharge spout) Forestry trimming and/or harvesting tool High pressure liquid dispenser (roof / wall cleaning) Life buoy carriage & delivery device Lighting (floodlight, spotlight, strobe) Loudspeaker / megaphone Manipulating / robotic arm Payload-imposed antennae Perching grip (on high power transmission cable) Publicity banners (UAS-towed) & tow hook Publicity / announcement screen Tagg fixation device (e.g. bird disruptor on power cable) Spraying system (liquids for various purposes: pesticides, fertilizer, insecticides, cleaning / painting of structures) Suction extractor (hornet & wasp nest control) Water bombing system (large volume liquid release) Water sampling device Military Airborne data recorder Artillery / gunshot detector & localiser Cargo (net) sling & hook Communications intelligence (COMINT) Communication relav Electronic counter measures (ECM) Electronic intelligence (ELINT) Electronic warfare (EW) Intelligence, Surveillance, Reconnaissance (ISR) Laser designator Lethal (airframe with integrated warhead) Mine detector Missiles & rockets (incl. carriage / launch pylons) Ordnance delivery (e.g. bombs, grenades, mortars) Pod (wing / fuselage-mounted - various purposes) Signal intelligence (SIGINT) Target search & acquisition (TA) UA neutralisation / interception system (net launcher & net) Weapon (lethal, non-lethal) & mount

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