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 Manufacturer

 Country

 UAS Designation / Name

Usage Sector	☐ Private (<i>commercial & non commercial</i>) ☐ Public (<i>governmental</i>)			
Usage Category (See page 2)	☐ Aerial Work ☐ Cargo Transport ☐ Passenger Transport ☐ Military			
Status	☐ Conceptual ☐ In Development ☐ Experimental ☐ Prototype ☐ Demonstrator ☐ Market Ready ☐ In Production ☐ Research Project			
Airframe Type	☐ Fixed Wing (<i>capable of flight by using the aerodynamic lift generated by its wings</i>) ☐ Fixed Wing with Lift Rotors (<i>rotors positioned on its arms, wings, tail or booms</i>) ☐ Lighter-than-Air (<i>dirigibles, airships</i>) ☐ Motorized Parafoil (<i>pod with pushing engine; flight is assured by means of a parafoil</i>) ☐ No Wings / No Rotors (e.g. <i>fuselage or pod with integrated ducted fans or vectoring jet nozzles</i>) ☐ Ornithopter (<i>flapping wings</i>) ☐ Rotorcraft (<i>derives its source of lift from rotor blades rotating around an axis</i>) ☐ Tilt Wing (<i>wing is horizontal for conventional forward flight and rotates up for VTOL</i>) ☐ Transwing (<i>wing folds & tilts & permits in-flight transitioning</i>)			
VTOL	Vertical take-off & landing-capable ☐ Yes ☐ No			
Rotorcraft Class (See page 3 for the explanation of terms & pictographs)	☐ Bicopter ☐ Birotor Coaxial ☐ Birotor Intermeshing ☐ Gyroplane ☐ Monocopter ☐ Multicopter (>2 & <10 lift rotors): ☐ Pluricopter (10 lift rotors & more): <div style="display: flex; justify-content: space-between;"> <div> <input type="text"/> Quantity lift rotors <input type="text"/> Quantity puller rotors <input type="text"/> Quantity pusher rotors </div> <div> <input type="text"/> Quantity lift rotors <input type="text"/> Quantity puller rotors <input type="text"/> Quantity pusher rotors </div> </div> ☐ Tandem Ducted Rotor ☐ Tandem Rotor ☐ Tailsitter ☐ Drone-in-a-Box Tether: ☐ Standard ☐ Optional <input type="text"/> Length in m			
Propulsion	☐ Electric ☐ Hybrid ☐ Jet / Turbine ☐ Piston ☐ Other			
Fuel / Energy	☐ Avgas ☐ Battery ☐ Fuel Cell ☐ Gasoline ☐ Heavy Fuel ☐ Nitrogen ☐ Solar Panel ☐ 2-Stroke ☐ 4-Stroke ☐ Other Note: Heavy Fuel = Diesel, Jet Fuel (<i>Jet A1, JP5, JP8</i>), Kerosene			
Command & Control	☐ Manual ☐ Programmed / Automatic / Autonomous ☐ Fiber optic control			
Radio Control Range	☐ <0,2 km ☐ 2 km ☐ 25 km ☐ 50 km ☐ 75 km ☐ 150 km ☐ >150 km			
Flight Operations	☐ SatCom-enabled ☐ GPS-denied areas ☐ Confined spaces ☐ Open sky			
Flight Endurance	<input type="text"/> minutes <input type="text"/> km Please fill in both boxes		Swarm-capable ☐ Yes ☐ No	
Cruise Speed	<input type="text"/> km/h	Maximum Speed <input type="text"/> km/h	Max.Take-Off Weight <input type="text"/> kg	
FPV Capable	☐ Standard ☐ Optional		Self-charging-capable ☐ Standard ☐ Optional	
Primary Mission Payload	☐ Imaging ☐ Sensing & Measurement ☐ Other (<i>Non-military</i>) ☐ Other (<i>Military</i>) (See page 4 for the explanation of terms & examples)			
Payload Capacity	<input type="text"/> kg Total weight of the payload [(<i>Imaging, Sensing & Measurement, Other</i>), cargo, pilot + passengers + luggage], that can be accommodated. Primary payload is aircraft specific & factory-integrated ☐ Yes ☐ No <input type="text"/> Quantity of passengers that can be transported (<i>in addition to the pilot</i>)			
Submitter ☐ Mr ☐ Ms	First Name <input type="text"/>		Family Name <input type="text"/>	
	Email <input type="text"/>		Tel. <input type="text"/>	
	Date <input type="text"/>			

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).

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 advertisements, 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

(Commercial & Corporate operations)

- ♦ Test / Experimental
- ♦ Demonstration
- ♦ Ferry / Positioning
- ♦ Air Show / Race

Passenger Transport

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

Governmental & Military Flight Operations

Governmental Flight Operations

Security-related

- ♦ Border Guards
- ♦ Coast Guard
- ♦ Customs
- ♦ Police (municipal, national, federal)

Safety-related

- ♦ Civil Protection
- ♦ Fire-fighters
- ♦ Gvmt executive agency

Military Flight Operations

- ♦ Air Force
- ♦ Army
- ♦ Gendarmerie
- ♦ Navy
- ♦ Air Force Special Forces
- ♦ Army Special Forces
- ♦ Military Police
- ♦ Navy Special Forces

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

Cargo Transport

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

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

UAS AIRFRAME TYPES

Fixed Wing

Capable of flight by using the aerodynamic lift generated by its wings

Fixed Wing with Lift Rotors

Rotors positioned on its arms, wings, tail or booms

Lighter-than-Air

Dirigibles, airships

Motorized Parafoil

Pod with pushing engine; flight is assured by means of a parafoil.

No Wings / No Rotors

(e.g. fuselage or pod with integrated ducted fans or vectoring jet nozzles)

Ornithopter

Flapping wings

Rotorcraft

Derives its source of lift from rotor blades rotating around an axis

Transwing

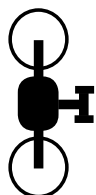
Wing folds & tilts & permits in-flight transitioning

Tilt Wing

Wing is horizontal for conventional forward flight and rotates up for VTOL

UAS ROTORCRAFT CLASSES

Bicopter (BC)



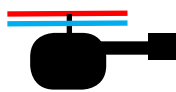
Fuselage or pod with 2 arms, each equipped with 1 rotor - No tail rotor.

Coaxial Motor / Rotor Configuration



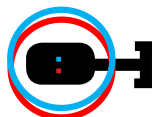
A set of 2 motors & 2 rotors on the same axis, with the rotors rotating in opposite directions, installed on arms, rotor booms, stub wings or wings.

Birotor Coaxial (BR)



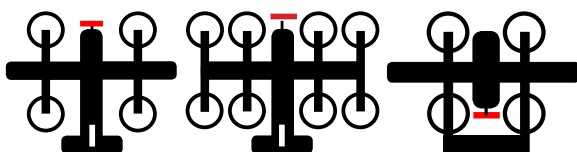
Fuselage or pod with 2 super-imposed coaxial rotors - No tail rotor.

Birotor Intermeshing (BRI)



Fuselage or pod with 2 rotors side-by-side - No tail rotor.

Fixed Wing Rotary (FWR)



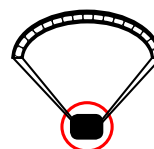
Fixed wing aircraft (puller or pusher configuration) with lift rotors (non-coaxial or coaxial) (tilting or non-tilting) positioned on wings, tail or wing booms, or in fuselage & tail, or with fans positioned on wings.

Gyroplane (Gyr)



Fuselage or pod with unpowered lift rotor & forward propulsion rotor on aft of fuselage, on side arms or on (stub) wings - No tail rotor.

Motorized Parafoil (PF)



Pod with pushing engine; flight is assured by a parafoil.

Monocopter (Mon)



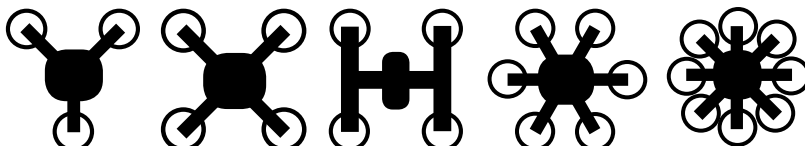
Fuselage or pod with one powered lift & one powered tail rotor. May have forward propulsion rotors on side arms or (stub) wings.

Mono Ducted Rotor (MDR)



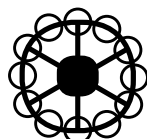
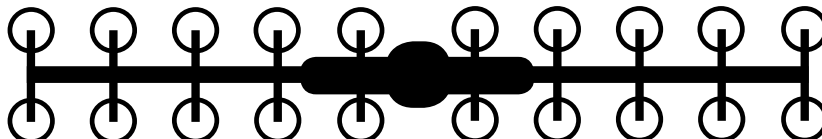
Pod without wings with 1 integrated ducted rotor (non-coaxial or coaxial).

Multicopter (Mul)



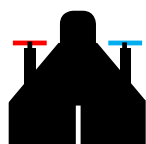
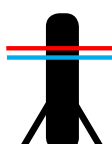
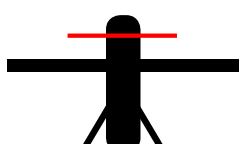
Pod with >2 & <10 lift rotors (non-coaxial or coaxial) positioned on arms or rotor booms (aka *tricopters*, *quadrocopters*, *hexacopters*, *octocopters*)

Pluricopter (Plu)



Pod with 10 or more lift rotors (non-coaxial or coaxial) positioned on wing booms, tail booms, arms, rotor booms or supports.

Tailsitter (TS)



A type of VTOL aircraft that takes off and lands on its tail, and, after take-off, tilts horizontally for forward flight.

Tandem Rotor (TR)



A type of VTOL aircraft with 2 main rotor systems. The rear rotor is usually mounted in a higher position than the front rotor, in order to avoid blades from colliding. No tail rotor.

Tandem Ducted Rotor (TDR)



Fuselage or pod with 2 integrated ducted rotors (non-coaxial or coaxial).

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 (Civil & Military)

Elements on a UA that permit 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
Radar - Synthetic Aperture (SAR)
Solid State Photon Counter

Sensing & Measurement Payloads (Civ. & Mil.)

Elements on an unmanned aircraft (UA) that permit 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
Dry film thickness measurement device
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
Mobile telephone detector & localiser
Moving target indicator
Multibeam echosounder (MBES)
Nuclear, radiological, biological & chemical (NRBC) detector

Odour detector
Particle measurement device
Phenomena analysis
Pulsed eddy current (PEC) wall thickness measurement
Radiation meter
Spectrometer
Radio frequency spectrum analyser
Ultrasonic analysis device
Ultraviolet sensor

Other Payloads

Elements on an unmanned aircraft (UA) that permit to achieve specific non-imagery and non-sensing mission objectives. They are split into 2 categories:

Non-Military

Airborne data recorder
Cable stringing (lead) grip
Cargo hoisting & lowering winch & cable
Cargo (net) sling & hook
Cargo storage container rack (*internal & external*)
Communication relay (*incl. antennae*)
Dispensing system (*solids*):

- ♦ Bulk (*e.g. fertilizer, granulates, larvae capsules*)
- ♦ 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
Perching grip (*on high power transmission cable*)
Powerline de-icing apparatus
Publicity banners (*UAS-towed*) & tow hook
Publicity / announcement screen
Tagg fixation system (*e.g. bird disruptor*)
Spraying system (*liquids for various purposes: Pesticides, fertilizer, insecticides, cleaning / painting of structures*)
Suction extractor (*hornet & wasp nest control*)
Water bombing system (*large volume release*)
Water sampling device

Military

Artillery / gunshot detector & localiser
Automated identification system (AIS)
Cargo (*net*) sling & hook
Communications intelligence (COMINT)
Communication relay (*incl. antennae*)
Directed acoustic (*subsonic, sonic, ultrasonic*) energy emitter
Electronic counter measures (ECM)
Electronic intelligence (ELINT)
Electronic warfare (EW) & Electronic support (ES)
Image intelligence (IMINT)
Intelligence, Surveillance, Reconnaissance (ISR)
Laser (*target*) designator
Mine detector (*on land / at sea*)
Missiles (*incl. launch pylons / racks*)
Ordnance (*e.g. bombs, flares, grenades, mortars*) & ejectors
Pod (*wing / fuselage-mounted - various purposes*)
Rockets (*incl. launch pylons / racks*)
Signal intelligence (SIGINT)
Target search & acquisition (TA)
UA neutralisation / interception system (*net & net launcher*)
Warhead
Weapon (*lethal, non-lethal*) & mount

For Aerial Decoys and / or Unmanned Target Aircraft

Radar signature augmentation / tailoring device
Thermal signature augmentation device
Tow target sleeve, cable & winch
Smoke generator