

ASSI SUA INFORMATION LEAFLET No 3

Issue 1.00 published on 9 August 2022

Abbreviations and Glossary for Small Unmanned Aircraft

(also known as UAVs, UAS, RPAS, Drones, Quadcoptors, Model aircraft etc)

A

AAIB Air Accidents Investigation Branch
AASPA Anguilla Air and Sea Ports Authority
ACAS Airborne Collision Avoidance System
ADS-B Automatic Dependent Surveillance-Broadcast
AFIS Aerodrome Flight Information Service
AGL Above ground level
AIC Aeronautical Information Circular
AIP Aeronautical Information Publication
AIS Aeronautical Information System
ALARP As low as reasonably practicable
AMSL Above mean sea level
AN(OT)O Air Navigation (Overseas Territories) Order
ANSP Air Navigation Service Provider
AOC Air Operator Certificate
ASSI Air Safety Support International
ATC Air Traffic Control
ATM Air Traffic Management
ATPL Airline Transport Pilot Licence
ATS Air traffic service
ATSU Air Traffic Service Unit
ATZ Aerodrome Traffic Zone

B

BCAA Bermuda Civil Aviation Authority
BVIAA British Virgin Islands Airports Authority
BRLOS Beyond radio line of sight
BVLOS Beyond visual line of sight

C

CAACI Civil Aviation Authority of the Cayman Islands
CAT Commercial air transport
CIAA Cayman Islands Airports Authority
CPL Commercial Pilot Licence
CRM Crew Resource Management
CS Certification Specification
CU Command Unit
C2 Command and Control

D

DA Danger Area
DAA Detect and Avoid
DfT UK Department for Transport



E

EC Electronic Conspicuity
EVLOS Extended visual line of sight

F

FCDO Foreign, Commonwealth & Development Office
FICAD Falkland Islands Civil Aviation Dept
FIR Flight Information Region
FISO Flight Information Service Officer
FPV First person view

G

GCS Ground Control Station – legacy term, replaced by Command Unit

H

HMI Human-Machine Interface

I

ICAO International Civil Aviation Organisation
IFR Instrument Flight Rules
IMC Instrument Meteorological Conditions

J

JARUS Joint Authorities for Rulemaking on Unmanned Systems

M

MOR Mandatory Occurrence Reporting
MTOM Maximum Take-Off Mass

N

NAA National Aviation Authority
NOTAM Notice to Airmen

O

OSC Operating Safety Case
OSO Operational Safety Objectives
OTAA Overseas Territories Aviation Authority
OTARs Overseas Territory Aviation Requirements

P

PPE Personal protective equipment
PPL Private Pilot Licence

R

RF Radio Frequency
RLOS Radio line of sight
RPA Remotely Piloted Aircraft
RPAS Remotely Piloted Aircraft System
RPZ Runway Protection Zone
RT Radiotelephony

S

SARPs Standards and Recommended Practices
SI Statutory Instrument
SMS Safety Management System
SOP Standard Operating Procedure
SORA Specific Operations Risk Assessment
SSR Secondary Surveillance Radar
STC Supplemental Type Certificate
SUA Small Unmanned Aircraft

T

TC Type Certificate
TCDS Type Certificate Data Sheet
TCAS Traffic Alert and Collision Avoidance System
TCIAA Turks and Caicos Islands Airports Authority
TCICAA Turks and Caicos Islands Civil Aviation Authority
TLOS Target level of safety
TSO Technical Standard Order (FAA)

U

UA Unmanned Aircraft
UAS Unmanned Aircraft System(s)
UIR Upper Flight Information Region
UK United Kingdom of Great Britain and Northern Ireland
UK CAA United Kingdom Civil Aviation Authority
UTM Unmanned Aircraft Systems (UAS) Traffic Management

V

VFR Visual Flight Rules
VHF Very High Frequency
VLOS Visual line of sight
VMC Visual Meteorological Conditions

Glossary of terms

A

Air Navigation (Overseas Territories) Order

The legal document established as a United Kingdom (UK) Statutory Instrument (SI) that is made for the purposes of regulating air navigation within the UK Overseas Territories.

Aircraft

Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the Earth's surface. *ICAO Annex 1.*

Airspace observer

See Visual Observer

As Low as Reasonably Practicable (ALARP)

Term often used in the regulation and management of safety-critical and safety-involved systems. The ALARP principle is that the residual risk shall be reduced as far as reasonably practicable.

ICAO Safety Management Manual Doc 9859

Autonomous aircraft

An unmanned aircraft that does not allow pilot intervention in the management of the flight.

ICAO RPAS Manual Doc 10019

Autonomous operation

An operation during which an unmanned aircraft operates without the remote pilot being able to intervene.

B

Beyond visual line of sight operations

A type of SUA operation which is not conducted in VLOS.

C

C2 Link Service

A communication service supplied by a third party, providing command and control between the unmanned aircraft and the Control Unit.



Command and control (C2) Link

The data link between the remotely piloted aircraft and the remote pilot station for the purposes of managing the flight. *ICAO RPAS Manual Doc 10019*

Command Unit

The equipment or system of equipment to control unmanned aircraft remotely, which supports the control or the monitoring of the unmanned aircraft during any phase of flight, with the exception of any infrastructure supporting the command and control (C2) link service.

Concept of operations

Describes the characteristics of the organisation, system, operations and the objectives of the user.

Continuing airworthiness

The set of processes by which an aircraft, engine, propeller or part complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life.

Controlled airspace

An airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification. *ICAO Annex 11*

Note: Controlled airspace is a generic term which covers Classes A, C, D and E airspace.

D

Danger area

Airspace which has been notified as such within which activities dangerous to the flight of aircraft may exist at specified times. *ICAO Annex 11*

Dangerous goods

Articles or substances, which are capable of posing a hazard to health, safety, property or the environment in the case of an incident or accident, that the unmanned aircraft is carrying as its payload, including in particular:

- (a) explosives (mass explosion hazard, blast projection hazard, minor blast hazard, major fire hazard, blasting agents, extremely insensitive explosives);
- (b) gases (flammable gas, non-flammable gas, poisonous gas, oxygen, inhalation hazard);
- (c) flammable liquids (flammable liquids; combustible, fuel oil, gasoline);
- (d) flammable solids (flammable solids, spontaneously combustible solids, dangerous when wet);
- (e) oxidising agents and organic peroxides;
- (f) toxic and infectious substances (poison, biohazard);
- (g) radioactive substances;
- (h) corrosive substances.

Detect and avoid (DAA)

The capability to see, sense or detect conflicting traffic or other hazards and take the appropriate action. *ICAO RPAS Manual Doc 10019*

E

Electronic Conspicuity

Electronic Conspicuity (EC) is an umbrella term for a range of technologies that can help airspace users to be more aware of other aircraft in the same airspace.

Exemption

An authorisation document used to allow an exception to the established law. Such an exception is usually only made subject to a number of additional conditions which still ensure adequate safety of the operation.

Extended Visual Line of Sight

A SUA operation whereby the Pilot in Command (PIC) maintains an uninterrupted situational awareness of the airspace in which the SUA operation is being conducted via visual airspace surveillance, possibly aided by technology means.

F

Follow-me mode

A mode of operation of a SUA where the unmanned aircraft constantly follows the remote pilot within a predetermined radius.



G

Geofencing

The enforcement of virtual restrictions on drones using a combination of Global Positioning Satellites, WiFi, Radio Frequency Identification, and a drone’s internal software. Geofencing is a safety measure that restricts access to restricted areas - an automatic limitation of the airspace a SUA can enter.

Ground Control Station (GCS)

See Command Unit (CU).

H

Handover

The act of passing piloting control from one remote pilot station to another. *ICAO RPAS Manual Doc 10019*.

Hazard

A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

ICAO Annex 19

Hazard Identification

Identification of a potentially unsafe condition resulting from failures, malfunctions, external events, errors, or a combination thereof.

Height

The vertical distance of a level, a point, or an object considered as a point, measured from a specified datum.

ICAO Annex 5

Highly automated

Those systems that still require inputs from a human operator (e.g. confirmation of a proposed action) but which can implement the action without further human interaction once the initial input has been provided.

Hovering

Staying in the same geographical position in the air.

Human Error

Human action with unintended consequences.

Human Factors

Human-machine interface issues with UAS control station displays, controls, functionality, automation, operator workload and system maintainability.

I

Initial airworthiness

The system used to determine the applicable requirements and establish that an aircraft design is demonstrated to be able to meet these requirements.

L

Lost C2 link

The loss of command and control link with the remotely piloted aircraft such that the remote pilot can no longer manage the aircraft’s flight. *ICAO RPAS Manual Doc 10019*

M

Manufacturer

Any natural or legal person who manufactures a product or has a product designed or manufactured and markets that product under their name or trademark.

Maximum take-off mass (MTOM)

The maximum SUA mass, including payload and fuel, as defined by the manufacturer or the builder, at which the SUA can be operated.

N

Night

The time from half an hour after sunset until half an hour before sunrise (both times inclusive), sunset and sunrise being determined at surface level.



NOTAM

A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

ICAO Annex 11

O

Operator

The person who at the relevant time has the management of that aircraft.

Operations Manual

A manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties.

Oversight

The verification, by or on behalf of the OTAA, on a continuous basis that the requirements of the regulations and the basis on which an Operational Permission has been issued, continue to be complied with.

P

Payload

Instrument, mechanism, equipment, part, apparatus, appurtenance, or accessory, including communications equipment, that is installed in or attached to the aircraft, and is not used or intended to be used in operating or controlling an aircraft in flight, and is not part of an airframe, engine, or propeller.

Permission

A document issued by the OTAA that permits the operation of a SUA, subject to the conditions and limitations outlined within the Permission, having taken into account the operational risks involved.

Pilot

See Remote Pilot.

Prohibited area

An airspace of defined dimensions over the land areas or territorial waters of a State, within which the flight of aircraft is prohibited. *ICAO Annex 11*

R

Radio line of sight (RLOS)

A direct radio link point-to-point contact between a transmitter and a receiver.

Redundancy

The presence of more than one independent means for accomplishing a given function or flight operation.

Remote pilot

A person responsible for safely conducting the flight of an unmanned aircraft by operating its flight controls, either manually or, when the unmanned aircraft flies automatically, by monitoring its course and remaining able to intervene and change the course at any time.

Remote Pilot Station (RPS)

See Command Unit (CU).

Remotely Piloted Aircraft (RPA)

An unmanned aircraft which is piloted from a remote pilot station. *ICAO RPAS Manual Doc 10019*

Remotely Piloted Aircraft System (RPAS)

A remotely piloted aircraft, its associated remote pilot station(s), the required command and control links and any other components as specified in the type design. *ICAO RPAS Manual Doc 10019*

Restricted area

Airspace of defined dimensions over the land areas or territorial waters of a State within which the flight of aircraft is restricted in accordance with certain specified conditions. *ICAO Annex 11*

Risk

The frequency (probability) of occurrence and the associated level of hazard.



Risk Analysis

The development of qualitative and / or quantitative estimate of risk based on evaluation and mathematical techniques.

Risk Assessment

The process by which the results of risk analysis are used to make decisions.

S

Safety

The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

Safety Management System (SMS)

A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

Safety Risk

The estimated likelihood and severity of harm to people when they encounter aviation.

See and avoid

The requirement of the pilot of a manned aircraft to “see” and “avoid” a collision, and to remain well clear of other aircraft.

Sense and avoid

See detect and avoid.

Small Unmanned Aircraft

Any unmanned aircraft, other than a balloon or a kite, having a mass of not more than 25kg without its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight

Sterile ground area

An area on the ground or water within which only people that are involved in the operation are permitted.

Specific Operations Risk Assessment (SORA)

A risk assessment methodology intended for use in specific scenarios.

Swarming

Operation of more than one SUA which are controlled collectively rather than individually.

T

Technical specification

A document that establishes technical requirements to be fulfilled by a product, process or service.

Tethered unmanned aircraft

An unmanned aircraft that remains securely attached (tethered) via a physical link to a person, the ground or an object at all times while it is flying. The tether normally takes the form of a flexible wire or a cable and may also include the power supply to the aircraft as well.

Third Party

Deriving no economic benefit and no control over risk associated with the SUA operation.

Transponder Mandatory Zone

Airspace of defined dimensions wherein the carriage and operation of pressure-altitude reporting transponders is mandatory.

U

Uninvolved Persons

Persons who are not participating in the SUA operation or who are not aware of the instructions and safety precautions given by the SUA operator.

Unmanned Aircraft (UA)

Any aircraft operating or designed to operate autonomously or to be piloted remotely without a pilot on board.

Unmanned Aircraft observer

See Visual Observer

Unmanned Aircraft System (UAS)

An unmanned aircraft and the equipment to control it remotely.

Note: The UAS comprises individual 'system elements' consisting of the unmanned aircraft (UA) and any other system elements necessary to enable flight, such as a Command Unit (CU), communication link and launch and recovery element. There may be multiple SUAs, CUs or launch and recovery elements within a UAS.

Unmanned Aircraft System Traffic Management (UTM)

A specific aspect of air traffic management which manages UAS operations safely, economically and efficiently through the provision of facilities and a seamless set of services in collaboration with all parties and involving airborne and ground-based functions.

V

Visual Line Of Sight (VLOS) operation

A type of SUA operation in which, the remote pilot is able to maintain continuous unaided visual contact with the unmanned aircraft, allowing the remote pilot to control the flight path of the unmanned aircraft in relation to other aircraft, people and obstacles for the purpose of avoiding collisions.

Visual Observer

A person who assists the remote pilot by performing unaided visual scanning of the airspace in which the unmanned aircraft is operating for any potential hazard in the air or on the ground. They must be familiar with the rules but there are no qualifications needed.

**Further information is available at: <http://www.airsafety.aero/sua>
Application Form available at: [SUA Application Form](#)**