

Paramaribo, February 1<sup>st</sup>, 2019

# No. 1-2019-OPS/AIR/AVSEC

# **Decision Director CASAS**

## Subject: Unmanned Aircraft

## 1 INTRODUCTION

#### 1.1 Background

Unmanned Aircraft Systems (UAS) are a new component of the aviation system, one which ICAO, States and the aerospace industry are working to understand, define and ultimately integrate.<sup>1</sup> Globally there is an increasing demand for the use of unmanned aircraft, for recreational as well as commercial purposes.

In Suriname the operation of all unmanned aircraft whether remotely piloted, fully autonomous or combinations thereof, is generally prohibited based on Article 16 of the Civil Aviation Safety and Security Act (hereafter "the Act") (S.B. 2002 no. 24) sub 1c. This prohibition also applies without regard to the purpose, size or weight of the unmanned aircraft.

Operating an unmanned aircraft is only allowed if the Minister in charge of air transport matters has granted conditional exemption from the prohibition. If such exemption is granted, this shall be implemented in pursuance of the terms, limitations and conditions thereof.

Furthermore, in accordance with Article 26 of the Act, the CASAS is authorized to establish conditions and limitations for the performance of aviation activities not being the transport of persons, animals or goods.

As such this DDC has been developed.

<sup>&</sup>lt;sup>1</sup> ICAO Circular 328, Unmanned Aircraft Systems (UAS)

#### 1.2 Purpose

The purpose of this DDC is to further define the terms, limitations and conditions for unmanned aircraft operations with regards to aviation safety and security, whenever a Ministerial Exemption has been granted.

This DDC is part of the regulatory framework for civil unmanned aircraft operations in the airspace of Suriname.

#### 1.3 Terminology

While different terminology is used by the aviation industry when describing various types of remotely controlled aircraft, for the purpose of this DDC "unmanned aircraft"<sup>2</sup> shall be referred to as Unmanned Aircraft Systems (UAS). This is more in line with the terminology used by the International Civil Aviation Organization (ICAO).

#### 2 DEFINITIONS<sup>3</sup>

**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.

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

**Autonomous operation.** An operation during which a remotely-piloted aircraft is operating without pilot intervention in the management of the flight.

**Command and control link.** The data link between the remotely-piloted aircraft and the remote pilot station for the purposes of managing the flight.

**Commercial operation.** An aircraft operation conducted for business purposes (mapping, security surveillance, wildlife survey, aerial application, etc.).

**Commercial use:** Flying your UAS with the intent of generating monetary profit for your business, or to provide your services as a professional UAS operator. This includes sharing promotional UAS footage or photos via digital channels for free.

Hobby or recreational use: Flying your UAS for fun or amusement.

**International UAS operations:** In manned aviation, international operations are considered to be those in which the aircraft crosses an international border or operates in high seas airspace. UAS present additional scenarios to be considered as international operations such as:

- a) the Remotely Piloted Aircraft is operating in the airspace of only one State (State X) while it is being remotely piloted from a Remote Pilot Station located in any other State (State Y);
- b) either the Remotely Piloted Aircraft or the Remote Pilot Station is operated in high seas airspace;

<sup>&</sup>lt;sup>2</sup> This DDC is only applicable to civil unmanned aircraft operations.

<sup>&</sup>lt;sup>3</sup> These definitions are used in the context of this DDC only.

Minister. The Minister in charge of civil aviation.

**Model aircraft.** A model aircraft is an unmanned aircraft that is: 1. Capable of sustained flight in the atmosphere 2. Flown within visual line-of-sight of the person operating the aircraft 3. Flown for hobby or recreational purposes.

**Operational control.** The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of safety of the aircraft and the regularity and efficiency of the flight.

**Remote pilot.** The person who manipulates the flight controls of a remotely-piloted aircraft during flight time.

**Remotely-piloted.** Control of an aircraft from a pilot station which is not on board the aircraft.

Remotely-piloted aircraft. An aircraft where the flying pilot is not on board the aircraft.<sup>4</sup>

**Remotely-piloted aircraft system.** A set of configurable elements consisting of a remotelypiloted aircraft, 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.

**Segregated airspace.** Airspace of specified dimensions allocated for exclusive use to a specific user(s).

Unmanned aircraft. An aircraft which is intended to operate with no pilot on board.

**Unmanned aircraft system.** An aircraft and its associated elements which are operated with no pilot on board.

**Visual line-of-sight operation.** An operation in which the remote pilot maintains direct visual contact with the aircraft to manage its flight and meet separation and collision avoidance responsibilities.

**Remote pilot station.** The component of the remotely piloted aircraft system containing the equipment used to pilot the remotely piloted aircraft.

**Remotely piloted aircraft (RPA).** An unmanned aircraft which is piloted from a remote pilot station.

**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.

**Visual line-of-sight (VLOS) operation.** An operation in which the remote pilot maintains direct unaided visual contact with the remotely piloted aircraft.

<sup>&</sup>lt;sup>4</sup> This is a subcategory of unmanned aircraft.

#### 3 DECISION

It is hereby decided that:

- a. Strict compliance with the Terms, Limitations and Conditions set forth in this DDC is warranted whenever the Minister has granted exemption for operation of a UAS. Unmanned aircraft can pose a hazard to manned aircraft in flight and to persons and property on the surface if not operated in accordance with safety regulations.
- b. Unmanned aircraft operations that endanger the safety of our national airspace, particularly careless or reckless operations or those that interfere with or fail to give way to any manned aircraft shall be subject to enforcement action.
- c. UAS shall be categorized based on their operational purpose and weight as follows:
  - 1. UAS for hobby or recreational use, abbreviated as UAS (R).
  - 2. UAS for professional use, abbreviated as UAS (P). This category applies to:
    - > Any UAS for commercial use or commercial operation; or
    - > Any UAS above 25 kg in weight.
- d. For the operation of UAS the applicable Terms, Limitations and Conditions have been divided into General and Specific provisions.

The following General Terms, Limitations and Conditions are applicable to all UAS operations while in addition thereto, the Specific Terms, Limitations and Conditions shall be applicable subject to the relevant UAS category.

#### i. General Terms, Limitations and Conditions

- 1. All unmanned aircraft operations shall be remotely piloted. Fully autonomous or semi-autonomous UAS operations are strictly prohibited.
- 2. International UAS operations are strictly prohibited; both the remotely piloted aircraft and the remote pilot station shall be operated within the boundaries of Suriname.
- 3. The remote pilot shall have operational control of the UAS flight. Therefore, the remote pilot is directly responsible for the entire operation of the UAS and he/she shall ensure compliance with this DDC.
- 4. The UAS shall not be operated unless it is in a condition for safe operation.
- 5. Prior to each flight, the remote pilot shall:
  - Inspect the UAS to determine whether it is in a condition for safe operation.
  - Ensure that all command and control links between the ground control station

and the UAS are working properly.

Check if the UAS is powered to ensure that there is enough available power

to operate for the intended operational time.

Ensure that any object attached or carried by the UAS is secure and does not

adversely affect the flight characteristics or controllability of the aircraft.

Assess the operating environment, considering risks to persons and property

in the immediate vicinity both on the surface and in the air. This assessment

must include:

- Local weather conditions;
- Local airspace and any flight restrictions;
- The location of persons and property on the surface; and
- Other hazards.
- 6. The UAS shall be operated within the remote pilot his/her visual line of sight (VLOS) at all times.
- 7. The remote pilot shall not operate the UAS at a lateral distance of less than 50 m from any congested area, buildings, houses, vehicles, vessels, or the public, including organized open-air assembly, spectators, bystanders or any person not associated with the operation of the UAS.
- 8. The UAS shall not be operated at or within 5 km of an airport/aerodrome.
- 9. The UAS shall not be operated at night or during low visibility conditions. The minimum flight visibility, as observed from the location of the control station must be no less than 4 km.
- 10. The UAS shall not be operated in controlled airspace.
- 11. The UAS shall be operated in a manner that does not interfere with, and gives way to, any manned aircraft; The UAS may not be operated so close to another manned or unmanned aircraft as to create a collision hazard.
- 12. The UAS shall not be operated in a careless or reckless manner so as to endanger the life or property.
- 13. A person may not act as a remote pilot in the operation of more than one UAS at the same time.
- 14. The UAS shall not be operated in prohibited or restricted airspace unless the remote pilot has permission from the using or controlling agency.
- 15. UAS shall not be operated with the intention of dropping or discharging any items to the ground.
- 16. The remote pilot shall report to CASAS within 5 calendar days by email or letter, any operation of the UAS involving:
  - Injury to any person; and or

- Damage to any property other than the UAS
- 17. The remote pilot, owner, operator of a UAS shall, upon request, allow authorized inspectors of CASAS to conduct any test or inspection of the UAS and or the remote pilot to determine compliance with this DDC.

#### ii. Unmanned Aircraft Systems – Recreational Use

For the operation of UAS (R) the following Terms, Limitations and Conditions are applicable:

- 1. The UAS (R) shall be flown strictly for hobby or recreational purposes.
- 2. The weight of the UAS (R) shall not exceed 25 kg.
- 3. The Remote Pilot of a UAS (R) shall be at least 16 years of age.
- 4. The UAS (R) shall not be operated at an altitude greater than 120 m above ground level (AGL).
- 5. The UAS (R) shall not be operated at a lateral distance of more than 500 m from the location of the Remote Pilot.
- 6. In accordance with the Civil Code, the Remote Pilot of a UAS (R) is liable for damages to third parties caused by the UAS operation. It is strongly recommended that the Remote Pilot holds appropriate insurance for any damages to third parties caused by the UAS operation.

#### iii. Unmanned Aircraft Systems – Professional Use

For the operation of UAS (P) the following Terms, Limitations and Conditions are applicable:

- 1. No person shall remotely pilot a UAS for professional use unless he/she holds a UAS (P) Operating Authorization issued by CASAS.
- 2. The Remote Pilot applying for a UAS (P) Operating Authorization shall:
  - Complete and submit the UAS (P) application form;
  - Be at least 21 years of age;
  - Present proof that he/she has been trained, tested, and found to be competent to act as the remote pilot of a UAS (P);
  - Demonstrate to CASAS that he/she is competent to operate the UAS (P) safely by carrying out such maneuvers while in control of the UAS (P) as CASAS may require;

- Register the UAS (P) in the unmanned aircraft register at CASAS. The application for registration shall be accompanied by the Manufacturer's Technical Specifications of the UAS (P).
- Obtain no objection from the Air Traffic Service Provider for the intended UAS (P) operation(s).
- Present to CASAS any other document considered necessary to ensure that the intended operations will be conducted safely.
- 3. When the requirements under (iii) (2) above have been met, CASAS may issue a UAS (P) Operating Authorization to the applicant.
- 4. The UAS (P) Operating Authorization shall contain all applicable additional operations specifications including operating limitations and any deviations.
- 5. The UAS (P) Operating Authorization shall be valid for 1 (one) year or for the duration of the intended operation, whichever is less.
- 6. Any special equipment fitted on the UAS (P) must be approved by CASAS and shall be included in the UAS (P) Operating Authorization.
- 7. The UAS (P) shall only be operated in airspace specially segregated by the Air Traffic Service Provider for that specific purpose only.
- 8. The Aeronautical Information Service (AIS) provider shall issue a Notice to Airmen (NOTAM) to make other airspace users aware of the UAS (P) operation and the therefor segregated airspace.
- 9. No person shall operate a UAS for professional use unless he/she has presented to CASAS proof of having the necessary Liability Insurance.

### 4 DEVIATION

A deviation permits a remote pilot to either deviate from a specific provision of this DDC or comply with special alternative provisions, conditions, or limitations.

To apply for a deviation, the remote pilot must submit a specific request to the Director of CASAS. The application must be made by a letter that identifies the specific provisions of this DDC from which a deviation is requested. The letter and attachments, if appropriate, must contain the specific reasons for requesting the deviation, information to show that an equivalent level of safety will be maintained, and any other information the CASAS may require.

#### 5 EFFECTIVE DATE

This Decision Director CASAS is effective from February 21<sup>st</sup>, 2019 and shall remain in force until cancelled, amended or revoked.

A/S: February 1, 2019

A. Wolf Director