

- (a) Air safety:
  - (1) non-reckless behaviour, safety precautions for UAS operations and basic requirements regarding dangerous goods;
  - (2) starting or stopping the operations taking into account environmental factors, UAS conditions and limitations, remote pilot limitations and human factors;
  - (3) operation in visual line of sight (VLOS), which entails:
    - (i) keeping a safe distance from people, animals, property, vehicles, and other airspace users;
    - (ii) the identification of assemblies of people;
    - (iii) a code of conduct in case the UA encounters other traffic;
    - (iv) respecting the height limitation; and
    - (v) when using a UA observer, the responsibilities and communication between the UA observer and the remote pilot; and
  - (4) familiarisation with the operating environment, in particular:
    - (i) how to perform the evaluations of the presence of uninvolved person in the overflowed area as required in UAS.OPEN.020(1) and UAS.OPEN.040(1); and
    - (ii) informing the people involved;
- (b) Airspace restrictions: obtain and observe updated information about any flight restrictions or conditions published by the MS according to Article 15 of the UAS Regulation<sup>2</sup>.
- (c) Aviation regulations:
  - (1) Introduction to EASA and the aviation system;
  - (2) Regulation (EU) 2019/945 and Regulation (EU) 2019/947:
    - (i) their applicability to EU MSs;
    - (ii) subcategories in the 'open' category and the associated classes of UAS;
    - (iii) registration of UAS operators;
    - (iv) the responsibilities of the UAS operator;
    - (v) the responsibilities of the remote pilot; and
    - (vi) incident – accident reporting;
- (d) Human performance limitations:
  - (1) the influence of psychoactive substances or alcohol or when the remote pilot is unfit to perform their tasks due to injury, fatigue, medication, sickness or other causes;

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<sup>2</sup> Commission Implementing Regulation (EU) 2019/947 of 24 May 2019 on the rules and procedures for the operation of unmanned aircraft

- (2) human perception:
  - (i) factors influencing VLOS;
  - (ii) the distance of obstacles and the distance between the UA and obstacles;
  - (iii) evaluation of the speed of the UA;
  - (iv) evaluation of the height of the UA;
  - (v) situational awareness; and
  - (vi) night operations.
- (e) Operational procedures:
  - (1) pre-flight:
    - (i) assessment of the area of operation and the surrounding area, including the terrain and potential obstacles and obstructions for keeping VLOS of the UA, potential overflight of uninvolved persons, and the potential overflight of critical infrastructure;
    - (ii) identification of a safe area where the remote pilot can perform a practice flight;
    - (iii) environmental and weather conditions (e.g. factors that can affect the performance of the UAS such as electromagnetic interference, wind, temperature, etc.); methods of obtaining weather forecasts; and
    - (iv) checking the conditions of the UAS;
  - (2) in-flight:
    - (i) normal procedures; and
    - (ii) procedures for abnormal situations (e.g. for lost-data-link connections);
  - (3) post-flight:
    - (i) maintenance; and
    - (ii) logging of flight details;
- (f) UAS general knowledge:
  - (1) basic principles of flight;
  - (2) the effect of environmental conditions on the performance of the UAS;
  - (3) principles of command and control:
    - (i) overview;
    - (ii) data link frequencies and spectrums; and
    - (iii) automatic flight modes, override and manual intervention;
  - (4) familiarisation with the instructions provided by the user's manual of a UAS, and in particular with regard to:
    - (i) overview of the main elements of the UAS;

- (ii) limitations (e.g. mass, speed, environmental, duration of battery, etc.);
  - (iii) controlling the UAS in all phases of flights (e.g. the take-off, hovering in mid-air, when applicable, flying basic patterns and landing);
  - (iv) features that affect the safety of flight;
  - (v) setting the parameters of the lost link procedures;
  - (vi) setting the maximum height;
  - (vii) procedures to load geographical zone data into the geo-awareness system;
  - (viii) procedures to load the UAS operator registration number into the direct remote identification system;
  - (ix) safety considerations:
    - (A) instructions to secure the payload;
    - (B) precautions to avoid injuries from rotors and sharp edges; and
    - (C) the safe handling of batteries;
  - (x) Maintenance instructions:
- (g) Privacy and data protection:
- (1) understanding the risk posed to privacy and data protection; and
  - (2) the guiding principles for data protection under the GDPR<sup>3</sup>;
- (h) Insurance:
- (1) liability in case of an accident or incident;
  - (2) general knowledge of the EU regulations; and
  - (3) awareness of the possible different national requirements for insurance in the MSs.
- (i) Security:
- (1) an understanding of the security risk;
  - (2) an overview of the EU regulations;
  - (3) awareness of the possible different national requirements for security in the MSs.

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<sup>3</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1).