PREDEFINED RISK ASSESSMENT PDRA-G01 Version 1.2, EDITION January 2022

(a) Scope

This PDRA is the result of applying the methodology that is described in AMC1 Article 11 of the UAS Regulation to UAS operations that are conducted in the ‘specific’ category:

(1) with UA with maximum characteristic dimensions (e.g. wingspan, rotor diameter/area or maximum distance between rotors in case of multirotor) of up to 3 m and typical kinetic energy of up to 34 kJ;

(2) BVLOS of the remote pilot with visual air risk mitigation;

(3) over sparsely populated areas;

(4) less than 150 m (500 ft) above the surface overflown (or any other altitude reference defined by the Member State); and

(5) in uncontrolled airspace.

(b) PDRA characterisation and conditions

| Topic | Method of proof | | Condition | | | Integrity[[1]](#footnote-1) | | Proof1 | to be completed by BG CAA |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Operational characterisation (scope and limitations) | | | | | | | | |  |
| Level of human intervention | Self-declaration | | 1.1 No autonomous operations: the remote pilot should have the ability to maintain control of the UA, except in case of a loss of the command and control (C2) link. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 1.2 The remote pilot should operate only one UA at a time. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 1.3 The remote pilot should not operate the UA from a moving vehicle. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 1.4 The remote pilot should not hand the control of the UA over to another command unit. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| UA range limit | Self-declaration | | 1.5 Launch/recovery: at VLOS distance from the remote pilot, if not operating from a safe prepared area.  *Note: ‘safe prepared area’ means a controlled ground area that is suitable for the safe launch/recovery of the UA.* | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 1.6 In flight: | | |  | |  |  |
| 1.6.1 If no AOs are employed: the UA is not operated further than 1 km (or other distance defined by the competent authority) from the remote pilot.  *Note: The remote pilot’s workload should allow them to continuously visually scan the airspace.* | | | *Please include a reference to the relevant chapter of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 1.6.2 If AOs are employed: the range is not limited as long as the UA is not operated further than 1 km (unless a different distance is defined by the competent authority) from the AO who is nearest to the UA. | | | *Please include a reference to the relevant chapter of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| Overflown areas | Declaration supported by data | | 1.7 UAS operations should be conducted over sparsely populated areas. | | | *Please include a reference to the relevant chapter of the OM where the procedures for determining the population density are provided.* | | ‘I declare compliance.’  *Please describe how population density data is identified.* |  |
| UA limitations | Self-declaration | | 1.8 Maximum characteristic dimensions (e.g. wingspan, rotor diameter/area or maximum distance between rotors in case of a multirotor): 3 m | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 1.9 Typical kinetic energy (as defined in paragraph 2.3.1(k) of AMC1 to Article 11 of the UAS Regulation: up to 34 kJ | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| Flight height limit | Self-declaration | | 1.10 The maximum height of the operational volume should not be greater than 150 m (500 ft) above the overflown area (or any other altitude reference defined by the Member State).  *Note: In addition to the vertical limit of the operational volume, an air risk buffer is to be considered (see ‘Air risk’ under point 3 of this table).* | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| Airspace | Self-declaration | | 1.11 The UA should be operated: | | |  | |  |  |
| 1.11.1 in uncontrolled airspace (corresponding to an air risk that can be classified as ARC-b); or | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 1.11.2 in a segregated area (corresponding to an air risk that can be classified as ARC‑a); or | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 1.11.3 as otherwise established by the Member States in accordance with [Article 15](#_DxCrossRefBm9000043) (with an associated air risk that can be classified as not higher than ARC-b). | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| Visibility | Self-declaration | | 1.12 The UA should be operated in an area where flight visibility is greater than 5 km.  *Note: Please refer to* GM1 UAS.STS-02.020(3). | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| Others | Self-declaration | | 1.13 The UA should not be used to drop material or to carry dangerous goods, except for dropping items in connection with agricultural, horticultural or forestry activities where the carriage of such items does not contravene any other applicable regulations. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 2. Operational risk classification (according to the classification defined in AMC1 to Article 11 of the UAS Regulation) | | | | | | | | |  |
| Final GRC | 3 | **Final ARC** | | ARC-b | **SAIL** | | II | |  |
| 3. Operational mitigations | | | | | | | | |  |
| Operational volume (see Figure 2 of AMC1 Article 11) | Self-declaration | | 3.1 To determine the operational volume, the applicant should consider the position-keeping capabilities of the UAS in 4D space (latitude, longitude, height, and time). | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 3.2 In particular, the accuracy of the navigation solution, the flight technical error of the UAS, as well as the flight path definition error (e.g. map error) and latencies should be considered and addressed when determining the operational volume. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 3.3 The remote pilot should apply emergency procedures as soon as there is an indication that the UA may exceed the limits of the operational volume. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| Ground risk | Self-declaration | | 3.4 The UAS operator should establish a ground risk buffer to protect third parties on the ground outside the operational volume. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 3.4.1 The minimum criterion should be the use of the ‘1:1 rule’ (e.g. if the UA is planned to operate at a height of 150 m, the ground risk buffer should at least be 150 m). | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 3.5 The operational volume and the ground risk buffer should be all contained in a sparsely populated area. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 3.6 The applicant should evaluate the area of operations typically by means of an on-site inspection or appraisal, and should be able to justify a lower density of people at risk in the operational area and the ground risk buffer. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| Air risk | Self-declaration | | 3.7 The UAS operator should establish an air risk buffer to protect third parties in the air outside the operational volume. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 3.8 This air risk buffer should be contained in an airspace that meets the conditions defined in 1.11 and over sparsely populated areas. If the operation is limited at a height below 120 m, no additional vertical air risk buffer is required. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’  *If the height of the operation is above 120 m and up to 150 m, please add the following:* ‘Supporting evidence is included in the OM.’  ‘Justification supporting the appropriate air risk buffer is documented in […].’ |  |
| 3.9 The operational volume should be outside any geographical zone corresponding to a flight restriction zone, as defined by the responsible authority, unless the UAS operator has been granted appropriate permission. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 3.10 Prior to the flight, the remote pilot should assess the proximity of the planned operation to manned aircraft activity. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| Declaration supported by data | | 3.11 If the UAS operation is performed above 120 m and up to 150 m, the UAS operator should develop appropriate procedures to not jeopardise other airspace users. | | | *Please include a reference to the relevant chapter/section of the OM.*  *Please describe how the remote pilots and, if employed, the AOs are able to assess the height of the UA compared to other airspace users[[2]](#footnote-2).* | | ‘I declare compliance and supporting evidence is included in the OM.’ |  |
| Observers[[3]](#footnote-3) | Self-declaration | | 3.12 If the UAS operator decides to employ one or more airspace observers (AOs), the remote pilot may operate the UA up to the distance that is specified in point 1.6.2. | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 3.13 The UAS operator should ensure the correct placement and the appropriate number of AOs along the intended flight path. Prior to each flight, the UAS operator should verify that: | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 3.13.1 the visibility and the planned distance of the AOs are within the acceptable limits that are defined in the operations manual (OM); | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 3.13.2 there are no potential terrain obstructions for each AO; | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 3.13.3 there are no gaps between the zones that are covered by each of the AOs; | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 3.13.4 communication with each AO is established and effective; and | | | *Please include a reference to the relevant chapter/section of the OM, otherwise ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 3.13.5 if means are used by the AOs to determine the position of the UA, those means are functioning and effective.  *Note: Instead of an AO, the remote pilot may perform the visual scan of the airspace, provided that the workload allows them to perform their duties.* | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| **4. UAS operator and UAS operations conditions** | | | | | | | | |  |
| UAS operator and UAS operations | Declaration supported by data | | 4.1 The UAS operator should: | | |  | |  |  |
| 4.1.1 develop an operations manual (OM) (for the template, refer to AMC1 UAS.SPEC.030(3)(e) and to the complementary information in GM1 UAS.SPEC.030(3)(e)); | | | *Please describe how this condition is met.* | | ‘I declare compliance and that supporting evidence is included in the OM.’ |  |
| 4.1.2 develop procedures to ensure that the security requirements applicable to the area of operations are complied with during in the intended operation; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance and that supporting evidence is included in the OM.’ |  |
| 4.1.3 develop measures to protect the UAS against unlawful interference and unauthorised access; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance and that supporting evidence is included in the OM.’ |  |
| 4.1.4 develop procedures to ensure that all operations comply with Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data; in particular, the UAS operator should carry out a data protection impact assessment, when this is required by the data protection national authority of the Member State with regard to the application of Article 35 of that Regulation; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance and that supporting evidence is included in the OM.’ |  |
| 4.1.5 develop guidelines for its remote pilots to plan UAS operations in a manner that minimises nuisance, including noise and other emissions-related nuisance, to people and animals; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance and that supporting evidence is included in the OM.’ |  |
| 4.1.6 develop an emergency response plan (ERP) in accordance with the conditions for a ‘medium’ level of robustness (please refer to AMC3 UAS.SPEC.030(3)(e); | | | *Please describe how this condition is met.* | | ‘I declare compliance and that the ERP is available to the competent authority for review.’ |  |
| 4.1.7 validate the operational procedures in accordance with the conditions for a ‘medium’ level of robustness, which are included in AMC2 UAS.SPEC.030(3)(e); | | | *Please describe how this condition is met.* | | ‘I declare compliance and that the description for meeting this condition is available to the competent authority for review.’ |  |
| 4.1.8 ensure the adequacy of the contingency and emergency procedures, and prove it through any of the following:  (a) dedicated flight tests; or  (b) simulations, provided that the representativeness of the simulation means is proven for the intended purpose with positive results; or  (c) any other means acceptable to the competent authority; | | | *Please describe how this condition is met.* | | ‘I declare compliance and that the description for meeting this condition is available to the competent authority for review.’ |  |
| 4.1.9 have a policy that defines how the remote pilot and any other personnel in charge of duties essential to the UAS operation can declare themselves fit to operate before conducting any operation; | | | *Please describe how this condition is met.* | | ‘I declare compliance and that the description for meeting this condition is available to the competent authority for review.’ |  |
| 4.1.10 designate for each flight a remote pilot with adequate competency and other personnel in charge of duties essential to the UAS operation if needed; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance and that supporting evidence is included in the OM.’ |  |
| 4.1.11 ensure that the UAS operation effectively uses and supports the efficient use of the radio spectrum in order to avoid harmful interference; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance and that supporting evidence is included in the OM.’ |  |
| 4.1.12 keep for a minimum of 3 years and maintain up to date a record of the information on UAS operations, including any unusual technical or operational occurrences and other data as required by the declaration or by the operational authorisation. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance and that record-keeping data is available to the competent authority for review.’ |  |
| UAS maintenance | Self-declaration | | 4.2 The UAS operator should: | | |  | |  |  |
| 4.2.1 ensure that the UAS maintenance instructions that are defined by the UAS operator are included in the OM and cover at least the UAS manufacturer’s instructions and requirements, when applicable; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 4.2.2 ensure that the maintenance staff follow the UAS maintenance instructions when performing maintenance; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 4.2.3 keep for a minimum of 3 years and maintain up to date a record of the maintenance activities conducted on the UAS; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 4.2.4 establish and keep up to date a list of the maintenance staff employed by the UAS operator to carry out maintenance activities; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 4.2.5 comply with point UAS.SPEC.100, if the UAS uses certified equipment; | | | *Please include a reference to the relevant chapter/section of the OM or n/a.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| External services | Self-declaration | | 4.3 The UAS operator should ensure that the level of performance for any externally provided service that is necessary for the safety of the flight is adequate for the intended operation. The UAS operator should declare that this level of performance is adequately achieved. | | | *Please describe how this condition is met.* | | ‘I declare compliance.’ |  |
| 4.4 The UAS operator should define and allocate the roles and responsibilities between the UAS operator and the external service provider(s), if applicable. | | | *Please describe how this condition is met.* | | ‘I declare compliance.’ |  |
| **5. Conditions for the personnel in charge of duties essential to the UAS operation** | | | | | | | | |  |
| General | Declaration supported by data | | 5.1 The UAS operator should ensure that all personnel in charge of duties essential to the UAS operation are provided with competency-based, theoretical and practical training specific to their duties, which consists of the applicable theoretical elements derived from AMC1 UAS.SPEC.050(1)(d), and practical elements from AMC2 UAS.SPEC.050(1)(d) and UAS.SPEC.050(1)(e). In addition, for non-remote pilots, also from AMC3 UAS.SPEC.050(1)(d). | | | *Please describe how this condition is met.* | | ‘I declare compliance.’  Evidence of training is available for inspection at the request of the competent authority or its authorised representative. The training programme is documented in the OM. |  |
| 5.2 The UAS operator should keep and maintain up to date a record of all the relevant qualifications and training courses completed by the remote pilot and the other personnel in charge of duties essential to the UAS operation and by the maintenance staff for at least 3 years after those persons have ceased to be employed by the organisation or have changed position within the organisation. | | | *Please describe how this condition is met.* | | ‘I declare compliance.’  Record-keeping data is available for inspection at the request of the competent authority. |  |
| Remote pilot | Self-declaration | | 5.3 The remote pilot should have the authority to cancel or delay any or all flight operations under the following conditions: | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.3.1 when the safety of persons is jeopardised; or | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.3.2 when property on the ground is jeopardised; or | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.3.3 when other airspace users are jeopardised; or | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.3.4 when there is a violation of the terms of the operational authorisation. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.4 If AOs are employed, the remote pilot should ensure that the necessary number of AOs is available and correctly placed, and that the communication with them can be adequately established. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.5 The remote pilot should: | | |  | |  |  |
| 5.5.1 not perform duties under the influence of psychoactive substances or alcohol, or when they are unfit to perform their tasks due to injury, fatigue, medication, sickness or other causes; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.5.2 be familiar with the manufacturer’s instructions provided by the manufacturer of the UAS; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.5.3 ensure that the UA remains clear of clouds; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.5.4 perform unaided visual scan of the airspace and ensure that the AO(s) can perform the same, if required, to avoid any potential collision hazard; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.5.5 obtain updated information relevant to the intended operation about any geographical zones defined in accordance with Article 15 of the UAS Regulation; and | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 5.5.6 ensure that the UAS is in a safe condition to complete the intended flight safely, and if applicable, check whether the direct remote identification is active and up to date. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| Multi-crew cooperation (MCC) | Self-declaration | | 5.6 Where multi-crew cooperation (MCC) is required, the UAS operator should: | | |  | |  |  |
| 5.6.1 designate the remote pilot-in-command to be responsible for each flight; | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 5.6.2 include procedures to ensure coordination between the remote crew members through robust and effective communication channels; those procedures should cover, as a minimum: | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or n/a’ |  |
| 5.6.2.1 the assignment of tasks to the remote crew members; and | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or n/a’ |  |
| 5.6.2.2 the establishment of step-by-step communication; and | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or n/a’ |  |
| 5.6.3 ensure that the training of the remote crew covers MCC. | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or n/a’ |  |
| Maintenance staff | Declaration supported by data | | 5.7 Any maintenance staff member that is authorised by the UAS operator to perform maintenance activities should have been adequately trained in the documented maintenance procedures. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance and that supporting evidence is included in the OM.’  Evidence of training is available at the request of the competent authority. |  |
| Personnel in charge of duties essential to the UAS operation are fit to operate | Self-declaration | | 5.8 The personnel in charge of duties essential to the UAS operation should declare that they are fit to operate before conducting any operation, based on the policy that is defined by the UAS operator. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| **6. Technical conditions** | | | | | | | | |  |
|  |  | | 6.1 The UAS should be equipped with means to monitor the critical parameters of a safe flight, in particular the following: | | |  | |  |  |
| 6.1.1 the UA position, height or altitude, ground speed or airspeed, attitude and trajectory; | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 6.1.2 the UAS energy status (fuel, battery charge, etc.); and | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 6.1.3 the status of critical functions and systems; as a minimum, for services based on RF signals (e.g. C2 Link, GNSS, etc.), means should be provided to monitor the adequate performance and trigger an alert when the performance level becomes too low. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 6.2 The UA should have the performance capability to descend safely from its operating altitude to a ‘safe altitude’ in less than 1 minute, or have a descent rate of at least 2.5 m/s (500 fpm). | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| Human–machine interface (HMI) | Self-declaration | | 6.3 The UAS information and control interfaces should be clearly and succinctly presented and should not confuse, cause unreasonable fatigue, or contribute to causing any disturbance to the personnel in charge of duties essential to the UAS operation in such a way that could adversely affect the safety of the operation. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 6.4 If an electronic means is used to support AOs in their role of maintaining awareness of the position of the UA, its HMI should: | | |  | |  |  |
| 6.4.1 be sufficiently easy to understand to allow AOs to determine the position of the UA during the operation; and | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 6.4.2 not degrade the AOs’ ability to: | | |  | |  |  |
| 6.4.2.1 perform unaided visual scan of the airspace where the UA is operating for any potential collision hazard; and | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 6.4.2.2 maintain effective communication with the remote pilot at all times. | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| 6.5 The UAS operator should conduct a UAS evaluation that considers and addresses human factors to determine whether the HMI is appropriate for the operation. | | | *Please describe how this condition is met.* | | ‘I declare compliance.’ |  |
| C2 links and communication | Self-declaration | | 6.6 The UAS should comply with the applicable requirements for radio equipment and the use of the RF spectrum. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 6.7 Protection mechanisms against interference should be used, especially if unlicensed bands (e.g. ISM) are used for the C2 link (mechanisms such as FHSS, DSSS or OFDM technologies, or frequency deconfliction by procedure). | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 6.8 The UAS should be equipped with a C2 link that is protected against unauthorised access to the command-and-control functions. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 6.9 In case of a loss of the C2 link, the UAS should have a reliable and predictable method to recover the command-and-control link of the UA or to terminate the flight in a way that reduces any undesirable effect on third parties in the air or on the ground. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 6.10 Communication between the remote pilot and the AO(s) should allow the remote pilot to manoeuvre the UA with sufficient time to avoid any risk of collision with manned aircraft, in accordance with point UAS.SPEC.060(3)(b) of the UAS Regulation. | | | *Please describe how this condition is met.* | | ‘I declare compliance.’ |  |
| Tactical mitigation | Self-declaration | | 6.11 The UAS design should be adequate to ensure that the time required between a command given by the remote pilot and the UA executing it does not exceed 5 seconds. | | | *Please include a reference to the relevant chapter/section of the OM.* | | ‘I declare compliance.’ |  |
| 6.12 Where an electronic means is used to assist the remote pilot and/or AOs in being aware of the UA position in relation to potential ‘airspace intruders’, the information is provided with a latency and an update rate for intruder data (e.g. position, speed, altitude, track) that support the decision criteria. | | | *Please include a reference to the relevant chapter/section of the OM, otherwise indicate ‘n/a’.* | | ‘I declare compliance.’ or ‘n/a’ |  |
| Containment | Declaration supported by data | | 6.13 To ensure a safe recovery from a technical issue that involves the UAS or an external system that supports the operation, the UAS operator should ensure that: | | |  | |  |  |
| 6.13.1 no probable failure of the UAS or of any external system that supports the operation would lead to operation outside the operational volume; and | | | *Please describe how this condition is met.* | | ‘I declare compliance.’  ‘A design and installation appraisal is available and it covers at least:   * the design and installation features (independence, separation, and redundancy); and * the particular risks (e.g. hail, ice, snow, electromagnetic interference, etc.) relevant to the type of operation.’ |  |
| 6.13.2 it is reasonably expected that a fatality will not occur due to any probable failure of the UAS or of any external system that supports the operation. | | | *Please describe how this condition is met.* | |  |
| 6.14 The vertical extension of the operational volume should be 150 m above the surface (or any other reference altitude defined by the Member State).  *Note: The term ‘probable’ should be understood in its qualitative interpretation, i.e. ‘anticipated to occur one or more times during the entire system/operational life of an item’.* | | | *Please describe how this condition is met.* | |  |
| Declaration supported by data | | 6.15 The following additional conditions should apply if the adjacent area includes an assembly of people or if the adjacent airspace is classified as ARC-d (in accordance with the SORA): | | |  | |  |  |
| 6.15.1 The UAS should be designed to standards that are considered adequate by the competent authority and/or in accordance with a means of compliance that is acceptable to that competent authority such that: | | | *Please include a reference to the relevant chapter/section of the OM or indicate ‘n/a’.* | | ‘I declare compliance.’  Analysis and/or test data with supporting evidence is available. |  |
| 6.15.1.1 the probability of the UA leaving the operational volume should be less than 10–4/FH; and | | | *Please include a reference to the relevant chapter/section of the OM or indicate ‘n/a’.* | |  |
| 6.15.1.2 no single failure of the UAS or of any external system that supports the operation should lead to operation outside the ground risk buffer.  *Note: The term ‘failure’ should be understood as an occurrence that affects the operation of a component, part, or element in such a way that it can no longer function as intended. Errors may cause failures but are not considered to be failures. Some structural or mechanical failures may be excluded from this criterion if it can be shown that these mechanical parts were designed according to aviation industry best practices.* | | | *Please include a reference to the relevant chapter/section of the OM or indicate ‘n/a’.* | |  |
| 6.15.2 SW and AEH whose development error(s) could directly lead to operations outside the ground risk buffer should be developed according to an industry standard or methodology that is recognised as adequate by the competent authority.  *Note 1: The proposed additional safety conditions cover both the integrity and the assurance levels.*  *Note 2: The proposed additional safety conditions do not imply a systematic need to develop the SW and AEH according to an industry standard or methodology that is recognised as adequate by the competent authority. For instance, if the UA design includes an independent engine shutdown function that systematically prevents the UA from exiting the ground risk buffer due to single failures or an SW/AEH error of the flight controls from occurring, the intent of the conditions of point 6.15.1 above could be considered met.* | | | *Please include a reference to the relevant chapter/section of the OM or indicate ‘n/a’.* | |  |
| Remote identification | Self-declaration | | 6.16 The UAS has a unique serial number compliant with standard ANSI/CTA-2063-A-2019, *Small Unmanned Aerial Systems Serial Numbers*, 2019, according to Article 40(4) of Regulation (EU) 2019/945. | | | *Please describe how this condition is met.* | | ‘I declare compliance.’ |  |
| 6.17 the UAS is equipped with a remote identification system according to Article 40(5) of Regulation (EU) 2019/945. | | | *Please describe how this condition is met.* | | ‘I declare compliance.’ |  |
| Lights | Self-declaration | | 6.18 If the UAS is operated at night, it is equipped with at least one green flashing light according to point UAS.SPEC.050(1)(l)(i) of the UAS Regulation. | | | *Please describe how this condition is met.* | | ‘I declare compliance.’ or ‘n/a’ |  |

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| Обобщение на констатациите: *Попълва се от ГД ГВА* |
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| За и от името на Оператора на БЛС |  |  | Проверено от ГД ГВА |
| Име (отговорен ръководител): |  |  | Име (инспектор): |
| Подпис: |  |  | Подпис: |
| Дата: |  |  | Дата: |

1. To be filled in by the UAS operator. [↑](#footnote-ref-1)
2. The UAS operator should demonstrate that they have sufficient confidence in the accuracy of the information about the height of the UA and the means to advert and avoid other airspace users and obstacles in the vicinity of the UA. [↑](#footnote-ref-2)
3. Please refer to point UAS.STS-02.050 for the AO’s main responsibilities. [↑](#footnote-ref-3)