

EASA Workshop on Standard Scenarios – Summary of the Discussions

While the discussion leading to the adoption of the regulation on UAS operations in the ‘open’ and ‘specific’ categories is still ongoing at the EU Commission, EASA organised on 9th – 11th July 2018 a workshop on standard scenarios with industry and Member States at its HQ in Cologne, Germany.

Standard scenarios correspond to defined types of UAS operation in the ‘specific’ category for which mitigation measures and operational safety objectives have been determined by EASA or by a competent authority. In this way, they are meant to simplify the operational risk assessment requested from the UAS operators.

It is envisaged that several standard scenarios will be developed to cover the vast majority of the operations conducted in the EU. They will define the operational limitations, conditions, technical requirements and minimum remote pilot competencies required to mitigate the risk of the UAS operation to a level acceptable to the National Aviation Authority (NAA).

It is envisaged that 2 types of standard scenarios will be developed:

- Standard scenarios under authorisation, where the applicant will need to substantiate to the NAA that the mitigations and operational safety objectives are met at the level of confidence specified in the standard scenario;
- Standard scenarios under declaration, where the where the mitigation measures will be more detailed and applicant will declare that the mitigations and operational safety objectives are met at the level of confidence specified in the standard scenario.

In any case, the UAS operator will not be allowed to deviate from the conditions defined in the standard scenario since they are the basis for the risk assessment leading to the mitigation measures. Therefore, if UAS operators cannot fit their operations in one standard scenario, then they are required to conduct a dedicated risk assessment.

The workshop was divided into two sessions. The first session was aimed at presenting a methodology for the risk assessment, as well as at reviewing the process for developing these standard scenarios.

With the support of experts in different disciplines, the discussion was not limited to safety but it also included privacy and security aspects. For those who were unable to attend, the video recording of the first day is available on EASA YouTube channel, following the link:

<https://www.youtube.com/playlist?list=PLTfS24aKkJn5cTzbTlqi0Nj6LBQ1Oca1->

The safety risk assessment is based on the SORA, developed by JARUS, and currently under external consultation at <http://jarus-rpas.org/external-consultations>. Comments may be sent to JARUS until 22nd August 2018.

New standard scenarios may be proposed by single persons to their NAA. In this case, the NAA will evaluate them and, if considered satisfactory, they may be used to approve UAS operations. NAAs may then propose the standard scenario to EASA, using the AltMoc (alternate means of compliance) procedure already in place in several other aviation domains, so they may become an acceptable mean of compliance (AMC) available to all EU UAS operators. In addition, EU industry, associations and NAAs may propose standard scenarios directly to EASA.

EASA will publish standard scenarios as AMC to the regulation of UAS operations in the ‘open’ and ‘specific’ categories, using its normal rulemaking process. When possible, the accelerated procedure (according to art 16 of the Management Board Decision n. 18-2015) will be used.

The prioritisation of the scenario to be developed will be based on the consideration of the following criteria:

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- Acceptability of the scenario by EU MS;
- Number of potentially interested operators (inputs by NAA and UAS operators);
- Impact on safety/public health (i.e. carriage of medical aid etc.); and
- Feasibility

The final prioritisation will be made by EASA after consulting the MSs and the new stakeholder advisory body Drone Committee (D.COM).

EASA presented the proposed structure of the standard scenario. It will consist of two different subparts:

- Subpart A, containing the general requirements and conditions applicable to all standard scenarios; and
- Subpart B, dedicated to each standard scenario, containing the appropriate requirements and conditions, and mitigation measures.

This approach was generally supported by the participants in the workshop.

On the second and third days EASA presented the first standard scenario under authorisation (STS A-01). This standard scenario is based on the one developed by JARUS and currently under public consultation, <http://jarus-rpas.org/external-consultations>. Comments may be sent to JARUS until 22nd August 2018. EASA will take credit of this consultation and the EASA Decision, including the SORA and this standard scenario, will not be further consulted through a notice of proposed amendment (NPA). It will be published according to the accelerated procedure (art 16 of the Management Board Decision n. 18-2015). This meeting serves also as focused consultation in support of the EASA Decision.

The standard scenario STS A-01 was presented and EASA took the following notes:

- It was agreed to adhere as close as possible to the criteria used in SORA. Consequently, a number of changes will be made in the document to align with the SORA criteria text. However, it was also noted that:
 - Security and privacy aspects are not currently addressed in SORA, and training aspects need further work. For the first two subjects, EASA may work independently from JARUS, and for the latter, it is planned that EASA will work closely with JARUS to produce the requiring elements for the STS document;
 - Some types of limitations defined in the STS template (in particular regarding the “level of human involvement”) include aspects that have not (yet) been assessed by JARUS. EASA indicated that they prefer to make them explicit and this may require that for the first “generic” STS those aspects are included as forbidden (as they are not addressed in the SORA).
- Other main comments to the document are the following ones:
 - Provision on recording information on the operation should be included for NAA’s oversight purposes. These should be split between “pre-flight” records and “during flight” records;
 - “Remote flight crew provisions” should all be under the UAS operator, as the whole STS is meant for the operator;
 - NAAs seem to agree that more detailed provisions are required. In particular, more detailed provisions were requested for remote flight crew training and qualification, establishing, for example, the minimum training objectives for all STS ; e.g. for lower risk scenarios (risk closer

to the 'open' category) the learning objectives and the "certificate of competency" defined in the 'open' category for A2 operations could be considered as the starting point;

- Most present NAAs seem to agree to require Operations Manual to all operators, independently of the size and purpose;
 - For this STS it is concluded that no "air risk buffer" needs to be included.
- In summary, very useful comments were provided to improve the document, which were recorded and will be incorporated in the next version.

The general criteria to decide when an STS could be considered declarative was discussed, and the audience concurred on the approach.

- STS with a safety portfolio¹ involving mitigations and operational safety objectives for which operator's declaration is sufficient could, in principle, be subject to declaration;
- Additional elements (e.g. SOP) could as well be subjected to declaration;
- The above criteria would in principle correspond to SAIL I scenarios and, potentially, some SAIL II scenarios (as long as there are no provisions requiring involvement of the competent authority).

Next steps leading to the publication of the EASA Decision are:

1. EASA will discuss with JARUS after the next JARUS plenary (in mid-October) the outcomes of the external consultation conducted for SORA and JARUS scenario;
2. An updated draft of the "EU-STs" document will be produced considering the comments of collected during this workshop and the outcomes of JARUS consultation. The document will be circulated for comments to all participants to the first and second days of the workshop, for a period of not less than 3 weeks;
3. After addressing those comments, a final version will be developed and published in Q1/2019 (pending on the adoption of the UAS regulation by the EU commission);
4. EASA will develop a draft list of priority STS to be discussed with MSs through MAB and the D.COM and will define a plan for the upcoming years.

¹ including: mitigations to modify intrinsic GRC, Strategic mitigations for the Initial ARC, Tactical mitigations for the Final ARC, Containment objectives, and Operational Safety Objectives