Template Structure for OM by LBA

Applicants have significant problems writing an OM using Annex A or AMC1 UAS.SPEC.030

- Structures are not exhaustive to meet all aspects of OSOs and mitigations
- Structures are not scalable (most applicants have a large amount of operational areas and different UAS)
- Unclear transition to LUC manual
- No harmonization to certified category

→ Bottom up approach:
*We wrote multiple manuals until reaching internal consensus for an OM structure*
Template Structure for OM by LBA

Part A – General
Part B - Procedures
Part C – Flight Areas
Part D - Training
Part E - ERP
Part T – Technical
Part M - Maintenance
Annex

Inspired by 965/2012
Adapted to 2019/947
Template Structure for OM by LBA

**Key benefits**

- Extremely modular: scalable to hundreds of areas and multiple UAS
- Easy transition to LUC
- Easy transition to AOC for certified category

**Additionally available**

- Complete cross references to all OSO requirements and mitigations
- Template for OM that includes required declarations and proposals or placeholders for content (e.g. formulations to fulfil OSOs, layouts for checklists, procedures, ERP...)
### Template Structure for OM by LBA

#### Crossreference Table

<table>
<thead>
<tr>
<th>OSOs ↓</th>
<th>Level of Robustness</th>
<th>Level of Robustness (Low, Medium, High)</th>
<th>Integrity (I) / Assurance (A)</th>
<th>Subitem</th>
<th>1 Allgemeiner Teil (Teil A)</th>
<th>2 Proceduren (Teil B)</th>
<th>3 Flugverkehrsplanung (Teil C)</th>
<th>4 Training (Teil D)</th>
<th>5 Notfallplan - FRP (Teil E)</th>
<th>6 UAS (Teil T)</th>
<th>7 Wartung (Teil M)</th>
<th>8 Annex</th>
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</tbody>
</table>
Template Structure for OM by LBA

Part B - Procedures

2.4 Procedures for Obtaining and Evaluating Weather Conditions
(OSO#08, #11, #14, #21_IC1a, OSO#23_IC2)

The checking of the weather condition takes place immediately before the start of the flight operation.

Primarily, the "DWD FlugWetter" app of the German Weather Service (DWD – Deutscher Wetterdienst) is used for data collection. In the process, the nearest aerodrome with a published METAR (METeorological Aerodrome Report) is used for the evaluation. The data is archived by means of screenshots. These are sent by e-mail to the company office for archiving after the end of the flight operation.

In the event that no current data are available or the nearest station with published METAR data is disproportionately far away, the data are determined by hand. These data are logged in the Technical Logbook.

The e-mail address of the company office is: GZ@konischeKegel.de

Format / layout of the e-mail:
- Subject line: MET, Flight date,
- In the e-mail: Location of operations and name of the PIC
- Annex: Data (* .jpg, *.txt, …)

2.5 Procedures for Responding to Unexpected Adverse Weather Conditions
(OSO#08, #11, #14, #21_IC1a)

If, despite conscientious flight preparation, a situation arises in which UAS operations are
Template Structure for OM by LBA

Situation in Germany after releasing the OM template

- Quality of applications significantly improved
- All OMs look the same
  → Workload for NAA significantly reduced
- Operators adapt existing OM’s to new operations extremely quick
  → Workload for Operator significantly reduced

Turnaround time for checking a complete OM of a first-time applicant reduced to *about 3 working days*
Scalable Structure of OM by LBA

LBA OM

- Part A – General
- Part B - Procedures
- Part C – Flight Areas
- Part D - Training
- Part E - ERP
- Part T – Technical
- Part M - Maintenance
- Annex

LUC Manual

- Part 1 - General
- Part 2 - SMS
- Part 3 - Privileges
- Part 4 - Annexes
Access to the OM by LBA

Unbemannte Luftfahrtssysteme / Drohnenführer­schein


www.LBA.de
Access to the OM by LBA

https://www.lba.de/DE/Drohnen/Betriebsgenehmigungen/Betriebsgenehmigungen_node.html#doc2996770bodyText6
Access to the OM by LBA

Dokumente in deutscher Sprache

- Leitfaden für Betriebsgenehmigungen
- Leitfaden zur Dimensionierung von Flight Geography, Contingency Volumes and Ground Risk Buffer
- Beurteilungstool für die Dimensionierung von Flight Geography, Contingency Volumes und Ground Risk Buffer
- Formulierungshilfen zur Erstellung eines Betriebshandbuches (PDF)
- Formulierungshilfen zur Erstellung eines Betriebshandbuches (Word)
- Vortrag - Antrag in der speziellen Kategorie

Dokumente in englischer Sprache

- Guideline for dimensioning of Flight Geography, Contingency Volume and Ground Risk Buffer
- Guidance for Dimensioning of Flight Geography, Contingency Volumes and Ground Risk Buffer
- Formulation template for the creation of an operations manual (PDF)
- Formulation template for the creation of an operations manual (Word)

https://www.lba.de/DE/Drohnen/Betriebsgenehmigungen/Betriebsgenehmigungen_node.html#doc2996770bodyText6
Questions

Back to EASA