Advanced Aerospace Developments GmbH
Design Organisation EASA.21J.527

Implementation of a Safety Management System @ AAD
Cologne, 25. June 2024 – EASA (publish version)

Wolfgang Leistner – Head of Design Organisation
AAD company structure – who we are

founded in 2016
approved in 2018

< 10 FTE DO
AAD is located in southern Germany @ Munich - technology park of Ottobrunn/Taufkirchen

address:

Willy-Messerschmittstraße 1
D- 82024 Taufkirchen
Germany
Connected performance portfolio

EASA.21J.527
Design Organisation & Flight Test Organisation H/C

ACENTISS
DIN EN9100:2018
system.structure.safety
Engineering
Light Unmanned Operations

LBA.DE.21G.0117
Production Organisation

LBA.DE.145.0126
Maintenance Organisation
MRO & CAMO

iABG
ISO 9001 / 14001
DIN EN ISO/IEC 17025
EN 9100
Testing

HTM
D-222 AOC
Flight Operations H/C

DE.ATO.093
Flight Training
## Terms of Approval (Scope) of AAD – EASA.21J.527

### Scope 06-2024:

<table>
<thead>
<tr>
<th>Type Certificate (TC)</th>
<th>Flight Test Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supplemental Type Certificate (STC)</strong></td>
<td><strong>Major Change STC</strong></td>
</tr>
<tr>
<td><strong>Minor Change</strong></td>
<td><strong>Minor Repair</strong></td>
</tr>
<tr>
<td><strong>Type Certificate (TC)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Very Light</strong></td>
<td><strong>Small CS-27</strong></td>
</tr>
<tr>
<td><strong>Large CS-29</strong></td>
<td><strong>LSA / VLA</strong></td>
</tr>
<tr>
<td><strong>Normal CS-23</strong></td>
<td><strong>Large CS-25</strong></td>
</tr>
</tbody>
</table>

- BK117 Argos II - Camera
- EC135 Co-Pilot Map Case

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Procedural overview of AAD’s DOH

Handbooks: 2

Procedures: 30

Forms: 50

Lists: 15

Org. Proced.: 10
Safety Management System
Basis:
AAD provides safety relevant services and design

The obligation to **achieve a maximum of safety** does exist
Safety Management System – what is in place?

Management- and Assurance systems of AAD

Design Management System

Design Organisation Handbook (DOH)

Pre-Project

Design Project
Change, Repair, STC, Service, Test, Flight Test

In Service

all prescribed and approved procedures and processes

DMS = Design Management System; DAS = Design Assurance System; SMS = Safety Management System
Safety Management System – make best use of existing processes

Management- and Assurance systems of AAD

DMS = Design Management System; DAS = Design Assurance System; SMS = Safety Management System
Elements of SMS - architecture

Safety Policy & Objectives

Safety Risk Management Process

Safety Manager

Safety Promotion

Safety Assurance Process
Elements of SMS – architecture → implemented elements

- Safety Policy & Objectives
- Safety Promotion
- Training plan
- Policy
- DOH chapter
- Job desct.
- Safety Manag.
- Safety Risk Management Process
- Safety Assurance Process
- existing procedure
- Design Management System
Elements of SMS – Safety Risk Management Process

- Typical risks of AAD as DO identified
- Enable DO to recognize upcoming or existing safety issues
- Gather, collect, and record safety data
- Analyse safety data/issues – Severity Evaluation
- Determination of Safety Risk Probability
- Rating of Safety Risk
- Determination of the Safety Risk Tolerability
- Initiate actions
Elements of SMS – Safety Assurance Process & Safety Promotion

Safety Assurance Process

- Tracking of the initiated actions
- Assurance of action conclusion
- 3H-Board initiates and assures process improvement

Safety Promotion

- Staff training
- Safety Reporting
Elements of SMS – complete architecture

- Safety Policy & Objectives
- Safety Risk Management Process
- Safety Promotion
- Safety Assurance Process

Safety Issue → Staff → Safety Manager

Safety Risk

- Severity
- Probability
- Safety Risk
- Tolerability

Safety Issues per Time

Training Plan

Training Course
Safety Issue

Into action: examples of a Safety Issue – FTI equipment

Situation
- damaged cable of FTI
- identified after flight campaign

SI - mindset:
The state of the equipment is not correct
Equipment was used for flight tests

→ SI to be reported
Reminder - SMS architecture - AAD’s experience

- Safety Policy & Objectives
- Safety Risk Management Process
- Safety Promotion
- Safety Assurance Process
- Safety Manager

- Implement main architecture elements
- Use existing process structure(s)
- Adapt existing tools
- Live a Safety mind set
- Train, motivate and report
discussion