

Unmanned Aircraft System Operations SAIL Mark Policy

CAP 722K

First Edition (Consultation)



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31 **Appendix B | SAIL Mark Certificate template** **33**

32

33 Revision history

34 **First Edition (Consultation)**

August 2024

35 This is the first edition of this document published for consultation.

36

37

38 Abbreviations and glossary terms

39 CAA UK Civil Aviation Authority

40 Crit. Criterion

41 GM Guidance Material

42 iGRC Intrinsic Ground Risk Class

43 OA Operational Authorisation

44 OSO Operational Safety Objective

45 R Requirement

46 RAE(F) Recognised Assessment Entity for Flightworthiness

47 RPAS Remotely Piloted Aircraft System

48 SAIL Specific Assurance and Integrity Level

49 SORA Specific Operational Risk Assessment

50 UAS Unmanned Aircraft System

51 UK United Kingdom

52

53 Competent Authority CAA

54 OA Applicant The individual or organisation who applies to the CAA for an
55 operational authorisation within the specific category.

56 Designer The individual or organisation responsible for the development and
57 manufacturing of the UAS which the SAIL Mark certificate is being
58 applied for.

59 Organisation The Designer, when referred to as a company or organisation.

60	SORA	The UK version of SORA that was originally developed by the
61		Joint Authorities for Rulemaking on Unmanned Systems (JARUS).

62 Foreword

63 Aim

64 CAP 722J “Unmanned Aircraft System Operations in UK Airspace – SAIL Mark” is a policy
65 intended for use by the Designer of an Unmanned Aircraft System (UAS) and a
66 Recognised Assessment Entity for Flightworthiness (RAE(F)) to understand the
67 requirements, administrative processes and guidance to enable the delivery of a SAIL
68 Mark certificate for a UAS to be operated within the Specific Category in the United
69 Kingdom.

70 How to use this document

71 The SAIL Mark policy is one acceptable means of compliance with Article 11(2)(d) of
72 Assimilated Regulation (EU) 2019/947. An OA Applicant may choose to describe the
73 technical features of a UAS for the purposes of that Article by relying on a UAS
74 configuration that has been granted a SAIL Mark certificate at the design stage in
75 accordance with the SAIL Mark policy.¹

76
77 The SAIL Mark policy identifies Requirements (R) sections and Guidance Material (GM)
78 sections.
79

80 CAP 722J identifies Requirements (R) sections and Guidance Material (GM) sections.

81 ‘R’ in a dark green box indicates a requirement that should be satisfied by the Designer or
82 RAE(F) in order to enable the delivery of the SAIL Mark certificate. Numbering indicates
83 sub-requirements (e.g. (a), (b), i, ii, etc); all sub-requirements must be complied with in
84 order to satisfy the requirement ‘R’. An exception to this is the information next to ‘R’ in
85 chapter 1.1, which indicates privileges that are not to be satisfied by the Designer.

86 ‘GM’ in a lighter green box indicates guidance material to help the Designer or RAE(F)
87 understand the information to be satisfied in the ‘R’ section. Numbering such as (a), (b), i,
88 ii, etc. indicates that the guidance is specific to the corresponding sub-requirement. A
89 paragraph with no numbering next to it indicates that the guidance it contains applies to
90 the overall requirement ‘R’.

91 The purpose of this format is to make clear what information is required from the Designer
92 or RAE(F) and what information is guidance.

¹ The AMC and GM referred to in this paragraph have not yet been adopted, and are being consulted on in this consultation. The text can be found, for the purpose of this consultation, in CAP 722J – First edition (Consultation).

- 93 This document applies the following editorial practices:
- 94 **'Must'** indicates a requirement to be complied with to satisfy the intent of this policy.
- 95 **'Should'** indicates a strong recommendation, where clear justification would need to be
96 provided to the UK Civil Aviation Authority (CAA) for not following the recommendation.
- 97 **'May'** indicates discretion.
- 98 Where references to other documents are provided, it is the policy User's responsibility to
99 ensure that the latest revision is being used.

100 Policy and scope

- 101 This policy sets out:
- 102 • the process by which a Designer for a specific UAS configuration may apply for a
 - 103 SAIL Mark for that UAS configuration;
 - 104 • how that application will be assessed;
 - 105 • the minimum criteria a Designer and their product must meet to be eligible for a SAIL
 - 106 Mark certificate;
 - 107 • the effect of a SAIL Mark certificate for the purposes of an OA Application;
 - 108 • conditions a Designer and their product must comply with to maintain the SAIL Mark
 - 109 certificate;
 - 110 • conditions an RAE(F) must comply with relating to its roles and responsibilities in the
 - 111 technical assessment of a UAS configuration for the purposes of a SAIL Mark
 - 112 certificate;
 - 113 • the roles and responsibilities of the CAA in granting a SAIL Mark certificate.
- 114
- 115 This policy supplements and must be read alongside the RAE(F) policy (CAP 722J) as
116 regards the roles and responsibilities of an RAE(F).
117
- 118 The CAA has the function of authorising operations in the 'Specific' category under Article
119 12 UK Reg (EU) 2019/947. To carry out this function, the CAA must evaluate the risk
120 assessment, and the robustness of the mitigating measures proposed by an OA Applicant
121 to keep the UAS operation safe in all phases of flight (Article 12(1)). This includes
122 mitigation measures relating to the technical features of the UAS: the CAA must establish
123 whether these mitigation measures are sufficiently robust to keep the operation safe in
124 view of the identified ground and air risks (Article 12(2)(b)).
- 125 Article 11 of that Regulation sets out the rules for conducting such a risk assessment, one
126 of which is that it must describe the characteristics of the UAS operation. Article 11(2)(d)
127 makes clear that this includes a description of the technical features of the UAS, including
128 its performance in view of the conditions of the planned operation.
- 129 This policy enables an OA Applicant to comply with that provision by relying on a UAS that
130 has been assessed and granted a SAIL Mark in accordance with this policy.
- 131 The CAA will retain full responsibility for any decision to grant or withhold a SAIL Mark
132 certificate under this policy, as well as any decision to vary, suspend or revoke a SAIL
133 Mark certificate.

134 Context

135 The CAA has contributed to, and further adapted, the methodology developed by the Joint
136 Authorities for Rulemaking on Unmanned Systems (JARUS) to establish criteria for
137 assessing mitigation measures relating to the technical features of a UAS. These are listed
138 in the UK Specific Operations Risk Assessment (UK SORA) methodology (on which we
139 are consulting now: [the consultation](#) closes 6 September 2024).

140 UK SORA identifies a range of technical issues that could, if not adequately addressed,
141 endanger a UAS operation. It also identifies criteria that can be used to determine whether
142 a given technical issue can be deemed to be mitigated to a low, medium or high level of
143 robustness. We refer to these criteria as “UK SORA requirements”.²

144 UK SORA also sets out a clear methodology by which a UAS operator can assess ground
145 and air risks for the planned operation and arrive at final ground and air risk scores. These
146 consolidated scores are combined to generate a Specific Assurance and Integrity Level
147 (SAIL), with SAIL I reflecting the lowest ground and air risk and SAIL VI the highest. The
148 SAIL level determines which requirements must be met, and at which level of robustness.

149 The UK SORA requirements are therefore mapped against each SAIL to identify the level
150 of robustness necessary for us to conclude that mitigation measures relating to the
151 relevant technical issues are appropriate to the level of ground and air risk in question.

152 SAIL Marking at the UAS design stage

153 The CAA has proposed two pathways for assessing a UAS against the UK SORA
154 requirements. This policy relates to the first of these pathways: assessment at the design
155 stage.

156 Some UK SORA requirements can only be satisfied through the design features and
157 fabrication methods of a UAS. An OA Applicant with a commercial off-the-shelf UAS is
158 unlikely to possess the supporting technical evidence needed to demonstrate compliance
159 with these requirements.

160 The SAIL Mark policy allows such evidence to be provided directly by the Designer while
161 the UAS is being developed, and its methodology enables a Designer to develop their
162 UAS by reference to UK SORA requirements.

163 Where a detailed technical assessment has been done at the design stage and the CAA is
164 satisfied that a UAS in a given configuration complies with UK SORA requirements
165 associated with one or more given SAILs, the CAA may grant a SAIL Mark certificate for
166 that UAS configuration, which will then be described as “SAIL Marked”. The SAIL Mark
167 certificate will indicate the highest SAIL for which that the UAS configuration meets the UK
168 SORA requirements to the appropriate level of robustness.

169 Where the CAA evaluates a risk assessment that includes a SAIL Marked UAS, it may be
170 deemed (in the absence of evidence to the contrary) that the UAS has the minimum
171 technical features considered necessary to reduce risk to an acceptable level in the class
172 of operations to which the SAIL Mark relates.

173 In practical terms, the SAIL Mark will reflect the highest SAIL at which the CAA deems the
174 UAS to be safe to operate.

175 Role of an RAE(F)

176 An entity approved as an RAE(F) may carry out the detailed assessment of a UAS against
177 UK SORA requirements at the design stage in accordance with this policy.

178 The RAE(F) will then notify the CAA of the results of its assessment. This will reflect the
179 views of the RAE(F) as to whether the UAS complies with the relevant UK SORA
180 requirements.

181 The CAA will take the views of the RAE(F) into account when deciding whether the
182 conditions for issuing a SAIL Mark certificate have been met (as set out in the SAIL Mark
183 policy).

184 **Availability**

185 The AMC and GM to UK Regulation (EU) 2019/947 and the latest versions of the CAP 722
186 series documents are available on the CAA website Publications section.

187 The CAA has a system for publishing further information and guidance, which can be
188 found on the CAA website under the Skywise section, which can be filtered for information
189 and subject matter relevant to UAS.

190 **Point of contact**

191 Unless otherwise stated, all enquiries relating to this CAP should be made to:

192 FS&I RPAS Policy Team
193 Civil Aviation Authority
194 Safety and Airspace Regulation Group
195 Aviation House
196 Beehive Ringroad
197 West Sussex
198 RH6 0YR

199 E-mail: uavenquiries@caa.co.uk

200

201

202

203

204

1. SAIL Mark Scheme

1.1 Privileges to the Designer

The SAIL Mark scheme is optional. There is no obligation for the Designer of a UAS to SAIL Mark their UAS in the UK.

- R** (a) The Designer must choose the highest SAIL, GRC and ARC that they wish to comply with.

- GM** (a) The SAIL Mark certificate confers automatic compliance of the UAS to the SORA requirements identified on the certificate during the OA process. The SORA requirements identified on the SAIL Mark Certificate do not require further compliance evidence from the OA Applicant during the OA process

210

1.2 Validity of the SAIL Mark certificate

The period of validity of the SAIL Mark certificate will extend for the in-service life of the UAS.

- R** (a) The SAIL Mark certificate is only valid for the UAS configuration specified on the certificate.
- (b) The SAIL Mark certificate will be suspended or revoked at any time by the CAA, including in but not limited to the following instances:
- The Designer fails to maintain compliance with the requirements identified in this policy.
 - The RAE(F) or CAA is prevented from performing their duties by the Designer.
 - The Designer surrenders their SAIL Mark certificate to the CAA.

- GM** (a) The Designer should consider the inclusion of any payload in the UAS configuration to be assessed by the RAE(F).
- (b) A SAIL Mark certificate can only be suspended or revoked by the CAA; it cannot be suspended or revoked by an RAE(F).

214

1.3 Transferability of SAIL Mark certificate

215

216 A SAIL Mark certificate is transferable to another organisation that is able to maintain the
217 validity of the SAIL Mark certificate per 1.2.

218

R

- (a) As part of the transfer of ownership of a SAIL Mark certificate, the previous organisation must provide to the new organisation all the data used in the demonstration of compliance with the requirements in this policy.
- (b) The organisation transferring the SAIL Mark certificate must notify the CAA of such transfer.
- (c) The CAA will re-issue the SAIL Mark certificate, with the updated name of the Designer.

219

220

1.4 UAS modification process

221 (a) A UAS modification performed by the Designer that is classified as major per the
222 definition of a UAS modification in CAP 722G² requires a new SAIL Mark certificate.

223 (b) A UAS modification performed by the Designer that is classified as minor, or a change
224 to the UAS that is not considered a UAS modification, per the definition of a UAS
225 modification in CAP 722G, does not require a new SAIL Mark certificate.

226 (c) A modification of the UAS manufacturing processes requires a new SAIL Mark
227 certificate (SAIL Mark III, IV, V, VI only).

228

R

- (d) The Designer must determine whether the UAS modification is minor or major per the definition of UAS modification in CAP 722G.
- (e) If the UAS modification is minor, the SAIL Mark certificate remains valid, and the Designer must follow the process in CAP 722G.
- (f) If the UAS modification is major, the Designer must follow the process in CAP 722G and apply to the CAA for a new SAIL Mark certificate.

GM

- (f) The Designer may re-use or update previous evidence data where possible to re-establish compliance with the requirements.

229

230

1.5 Changes to the Designer's organisation

² CAP 722G will be updated with a new UAS modification definition and process in due course, to align with the UK SORA.

231

R

- (a) A change to the Designer's organisation does not affect the validity of the SAIL Mark certificate if the organisation is able to maintain such validity per 1.2.

232

GM

- (a) Such changes may include organisational changes, which may be out of scope of this policy and CAA oversight. Providing the Designer is able to maintain compliance with the requirements set out in this policy, then the SAIL Mark Certificate remains valid.

233

234

1.6 Eligibility of the Designer

R

- (a) Any fit natural or legal person is eligible to progress through the SAIL Mark process as the Designer, under the requirements of this policy.
- (b) An organisation whose primary place of business is outside the UK can apply for a SAIL Mark certificate.

235

GM

- (a) The RAE(F) should consider an Applicant's fitness to apply for a SAIL Mark certificate in accordance with the CAA's fitness of character policy framework.

236

2. RAE(F) assessment

237

2.1 Process

- R
- (a) The Designer must select an RAE(F) and apply to them for a SAIL Mark Certificate.
 - (b) The RAE(F) must confirm the provision of their services for the SAIL Mark process and communicate it to both the Designer and the CAA.
 - (c) Using SORA, the Designer must determine the highest risk class and containment robustness level that they wish to comply with:
 - i. GRC for the footprint.
 - ii. ARC for the operational volume.
 - iii. Containment robustness level.
 - (d) From (c), the Designer must determine the maximum SAIL that they wish to comply with:
 - i. SAIL I.
 - ii. SAIL II.
 - iii. SAIL III.
 - iv. SAIL IV.
 - v. SAIL V.
 - vi. SAIL VI.
 - (e) From (c), (d) and 2.2, the Designer must determine the compliance basis and develop their compliance approach.
 - (f) The RAE(F) must review and agree the compliance basis and compliance approach with the Designer.
 - (g) The Designer must develop evidence data that demonstrates compliance with the SORA requirements identified in (f).
 - (h) The RAE(F) must verify the Designer's compliance with the following the SORA requirements identified in (e).
 - (i) If compliance has been achieved, the RAE(F) must declare to the CAA that the Designer complies with the SORA requirements for the intended SAIL.
 - (j) If compliance has not been achieved, the RAE(F) must communicate their declaration of non-compliance to the Designer and the CAA via a signed electronic letter, detailing the reasons for their decision.
 - (f) The Designer must provide to the CAA the serial number of each newly

produced UAS of the same configuration.

GM

- (c) The GRC and ARC at this stage are not considered to be the 'Final GRC' and 'Residual ARC' but are used nonetheless by the Designer to determine the SAIL and SORA requirements. Later on during the OA process, the OA Applicant may wish to apply further ground risk reduction (e.g. M1 mitigation) or further air risk reduction (e.g. air risk strategic mitigation) in order to obtain a Final GRC or Residual ARC lower than what the UAS is designed for.

If the Designer chooses to comply with the optional M2 mitigation requirements in section 1, it is up to the Designer to include the resultant reduction in ground risk in the GRC.

GRC, ARC and containment robustness level are recorded on the SAIL Mark certificate to allow the future Operator to confirm that the UAS is suited for their intended operation.

- (e) The compliance basis is the list of all SORA requirements to be complied with to obtain the SAIL Mark certificate. It includes mandatory requirements (e.g. Tactical mitigations, Containment requirements, OSOs) and optional requirements (e.g. M2 ground risk mitigation).

The compliance approach is a high-level description of how the Designer intends to comply with the SORA requirements. It should take the form of a compliance matrix in which the Designer provides a brief statement of the compliance method against each requirement (one or two sentences typically suffice) and the expected evidence documents (generic document titles suffice). The actual compliance evidence data and documents are not required at this stage. The Designer should follow the guidance provided in SORA Annex A for developing compliance basis and approach.

- (g) The Designer should follow the guidance provided in SORA Annex A for developing compliance evidence data.
- (h) For SAIL I and II, the RAE(F) will systematically verify the Designer's compliance with TMPRs, OSO 08, 05 and 13 as applicable. The compliance data to other SORA requirements will be uploaded by the Designer per 2.3 (a), but it will not be systematically verified by the RAE(F). The RAE(F) however reserves themselves the right to verify the Designer's compliance with any other SORA requirement.
- (f) The CAA will hold a database that will be able to verify whether the serial number of a particular UAS is covered by a SAIL Mark certificate. Individual SAIL Mark Certificates will not routinely be issued to each individual UAS. Instead, the overall SAIL Mark Certificate should be read in conjunction with the database of serial numbers, to confirm that a specific UAS holds a SAIL Mark Certificate.

238

239

2.2 Requirements to be complied with

240 This section identifies the parts of SORA to be complied with, and within them the
 241 requirements which are not required. The Designer uses this section to determine their
 242 compliance basis in 2.1 (e).

243 A number of SORA requirements depend on the intended operation, which will not be
 244 known to the Designer at this stage. The Designer should therefore develop their own set
 245 of assumptions such as the class of airspace or the environmental conditions in which their
 246 UAS may be operated, and use these assumptions to develop their compliance evidence.

247

R

(a) The Designer must comply with the following SORA requirements at the level of robustness determined in 2.1 (f):

SORA Annex D:

- i. Tactical mitigation:
 - TMPR using BVLOS (if applicable).

SORA Annex E:

- ii. OSO 2.
- iii. OSO 4.
- iv. OSO 5 all requirements except:
 - OSO5.L.A (b)
- v. OSO 16 Criterion 3 all requirements (if applicable) except:
 - OSO16C3.M.A (c).
- vi. OSO 18.
- vii. OSO 19.
- viii. OSO 20 all requirements except:
 - OSO20.L.A (c).
 - OSO20.M.A (d).
- ix. OSO 24 all requirements except:
 - OSO24.M.A (c).
- x. CO – Containment requirements:
 - Criterion 1 all requirements except CORC1.L.A (c).
 - Criterion 2 all requirements except CORC2.L.A (b), CORC2.M.A (c).
 - Criterion 3 all requirements except CORC3.L.A (c).
 - Criterion 4 all requirements except CORC4.M.A (c).
- xi. CT – Containment requirements (Tether) (if applicable):
 - Criterion 1 all requirements except COTC1.L.A (d).
 - Criterion 2 all requirements except COTC2.L.A (c), COTC2.H.A (b).

(b) The Designer must comply with the following requirements in Appendix A of this policy at the level of robustness determined in 2.1 (f):

SAIL Mark policy Appendix A:

- i. OSO 3.
- ii. OSO 6.
- iii. OSO 7.
- iv. OSO 16.
- v. OSO 24.
- vi. COR – Containment requirements.
- vii. COT – Containment requirements (tether) (if applicable).

GM

- (a) TMPRs are only applicable if the Designer chooses to comply with the requirements for BVLOS operation in ARC-b and above.

The meteorological conditions considered in the definition of the ground risk buffer for compliance with Containment requirements Criterion 3 should match those considered in the compliance with OSO 24.

- (b) Appendix A contains a number of requirements specific to the SAIL Mark policy, for the Designer to comply with. These requirements are not intended to be additional requirements over and above those in SORA to meet the target level of safety; they are the mechanism to provide technical data to the future OA Applicant that will enable a successful OA, which would otherwise not be available to the OA Applicant.

The requirements in Appendix A are labelled with the letter “S” (e.g. SOSO3.L.I), standing for ‘SAIL Mark’, in order to differentiate them from the requirements in SORA, to avoid confusion.

248

249

2.3 Data handling and retention

R

- (a) The Designer must submit the entirety of their compliance evidence data to the RAE(F) via a secure CAA online platform.
- (b) The Designer must keep records of their compliance evidence data for as long as the UAS remains in service.
- (c) The RAE(F) accesses the Designer’s data via the CAA online platform.
- (d) The RAE(F) must provide secure storage for the Designer’s data and for their own data to ensure that no damage to, or tampering of, records can occur.
- (e) The RAE(F) must not share the Designer’s data with any other party than the CAA, unless they have been instructed to do so by either the CAA or the Designer.
- (f) Once the SAIL Mark certificate has been delivered to the Designer, the RAE(F) must keep the Designer’s data that they have on record in their database for 3

months after the SAIL Mark certificate has been granted, and must delete all records of the Designer's data from their database after that.

- (g) The RAE(F) must draft the SAIL Mark certificate per Appendix B.
- (h) The RAE(F) must keep a record of their assessment data for as long as the assessed UAS remains in service, which includes:
 - i. Assessment report of ground risk mitigation means.
 - ii. Assessment report of air risk mitigation means.
 - iii. Assessment report of compliance with Operational Safety Objectives (OSO).
 - iv. Assessment report of compliance with containment requirements.
 - v. Test witnessing reports.
 - vi. Corrective actions by the Designer to achieve compliance with SORA requirements.

GM

- (d) The RAE(F) should implement the following measures:
 - i. Employ the "least privilege" access control model on any database or system hosting OA Applicant's data.
 - ii. The data access control should demonstrate tracking, audit trail, records or data management practices.
 - iii. Use PKI certificates as per "Specification 42 of Aviation Industry Standards for Digital Information Security" or similar PKI infrastructure to protect machine to machine interfaces within and when connecting with outside organisation.
 - iv. Protect human to machine interfaces by utilising multifactor access control.
 - v. Protect data at rest and data in transit with industry encryption standards such as AES.
 - vi. Apply basic physical security principles against unauthorised access and theft such as keeping computers used for OA data processing secured when not in use.

250

251

2.4 Interfaces between parties

R

- (a) The Designer and the RAE(F) communicate as and when necessary.

GM

- (a) The Designer should not normally need to communicate with the CAA.
The RAE(F) should not normally need to communicate with the CAA, except for the purpose of 2.1 (i) and (j) and (f).

252

253

2.5 Recurrent manufacturing auditing for SAIL V, VI

R

Where a high level of assurance is required for OSO 2, the RAE(F) must inform the CAA that this is the case, so that a recurring audit plan with the Designer can be established, to verify that the manufacturing procedures satisfy the SORA requirements and to verify that the UAS confirms to its design and specifications on an on-going basis.

254

255 3. M2 mitigation (optional)

256 3.1 Process

- R
- (a) The Designer must determine the level of robustness that they wish to comply with for M2 Criteria 1 and 2.
 - (b) From (a) and 3.2, the Designer must determine the compliance basis and develop their compliance approach.
 - (c) The RAE(F) must review and agree the compliance basis and compliance approach with the Designer.
 - (d) The Designer must develop evidence data that demonstrates compliance with the SORA requirements identified in (c).
 - (h) The RAE(F) must verify the Designer's compliance with the requirements.
 - (i) If compliance has been achieved, the RAE(F) must include the Designer's compliance with M2 Criteria 1 and 2 in the draft SAIL Mark certificate per Appendix B.

257

258 3.2 Requirements to be complied with

- R
- (a) The Designer must comply with the following SORA requirements at the robustness level determined in 3.1 (c):

SORA Annex B:

 - i. M2 Criterion 1 all requirements.
 - ii. M2 Criterion 2 all requirements except:
 - M2C2.M.I.
 - M2C2.M.A (c).
 - M2C2.H.A (b).
 - (b) The Designer must comply with the following requirements in Appendix A of this policy at the level of robustness determined in 3.1 (c):

SAIL Mark policy Appendix A:

 - i. M2 mitigation.

GM This section identifies the parts of SORA to be complied with. The Designer uses this section to determine their compliance basis in 3.1 (c).

259

260 **Appendix A | Requirements to support the UAS Operator**

261 **A.1 OSO 3 – UAS maintained by competent entity**

		LEVEL of INTEGRITY		
		Low (SAIL I, II)	Medium (SAIL III, IV)	High (SAIL V, VI)
OSO 3 UAS maintained by competent and/or proven entity	Criterion	SOSO3.L.I	SOSO3.L.I SOSO3.M.I	SOSO3.L.I SOSO3.M.I
		LEVEL of ASSURANCE		
		Low (SAIL I, II)	Medium (SAIL III, IV)	High (SAIL V, VI)
	Criterion 1 (Procedure)	SOSO3C1.L.A	SOSO3C1.L.A	SOSO3C1.L.A

262

263 **A.1.1 Low level of robustness (SAIL I, II)**

SOSO3.L.I The Designer must provide maintenance instructions and requirements to be recorded on the SAIL Mark certificate.

SOSO3C1.L.A Criterion 1 – Procedures
The Designer must provide evidence of compliance with the Integrity requirements.

GM.SOSO3.L.I The maintenance requirements are the needs for maintenance on the UAS, e.g. inspection after hard landing, regular check of lighting system. The Designer ensures that these requirements are covered in the maintenance instructions.

The maintenance instructions are the information establishing how to carry out the needed maintenance or repairs. These instructions are followed by the maintenance staff while performing maintenance.

264

265 **A.1.2 Medium level of robustness (SAIL III, IV)**

266 Lower robustness level requirements to be complied with:

SOSO3.L.I **SOSO3C1.L.A**

Additional requirements to be complied with:

SOSO3.
M.I The Designer must provide scheduled maintenance instructions to be recorded on the SAIL Mark certificate.

SOSO3C1.
M.A Criterion 1 – Procedures
No additional requirement.

267

268 **A.1.3 High level of robustness (SAIL V, VI)**

269 Lower robustness level requirements to be complied with:

SOSO3. **SOSO3C1.** **SOSO3.**
L.I L.A M.I

Additional requirements to be complied with:

SOSO3.
H.I No additional requirement.

SOSO3C1.
H.A Criterion 1 – Procedures
No additional requirement.

270

271 **A.2 OSO 6 – C3 link characteristics**

		LEVEL of INTEGRITY		
		Low (SAIL II, III)	Medium (SAIL IV)	High (SAIL V, VI)
OSO 6 C3 link characteristics (e.g. performance, spectrum use) are appropriate for the operation	Criterion	SOSO6.L.I	SOSO6.L.I	SOSO6.L.I
		LEVEL of ASSURANCE		
		Low (SAIL II, III)	Medium (SAIL IV)	High (SAIL V, VI)
	Criterion	SOSO6.L.A	SOSO6.L.A	SOSO6.L.A

272

273 **A.2.1 Low level of robustness (SAIL II, III)**

SOSO6. L.I (a) The Designer must provide the following data to be recorded on the SAIL Mark Certificate:

- i. C3 link performance specification.
- ii. C3 link RF spectrum.
- iii. Environmental conditions which the C3 link are designed to.

(b) The Designer must ensure that the UAS provides means for the remote pilot to continuously monitor the C3 link performance and to ensure the performance continues to meet the operational requirements.

SOSO6. L.A The Designer must provide evidence of compliance with the Integrity requirements.

AMC. SOSO6. L.I (b) The requirement may be complied with by monitoring the C2 link signal strength and receiving an alert from the UAS HMI if the signal becomes too low (SAIL II and III only).

GM. SOSO6. L.I (b) The remote pilot should have continuous and timely access to the relevant C3 information that could affect the safety of flight.

274

275 **A.2.2 Medium level of robustness (SAIL IV)**

276 Lower robustness level requirements to be complied with:

SOSO6. L.I **SOSO6. L.A**

Additional requirements to be complied with:

SOSO6. M.I. No additional requirement.

SOSO6. M.A No additional requirement.

277

278 **A.2.3 High level of robustness (SAIL V, VI)**

279 Lower robustness level requirements to be complied with:

SOSO6.
L.I

SOSO6.
L.A

Additional requirements to be complied with:

SOSO6.
H.I. No additional requirement.

SOSO6.
H.A No additional requirement.

280

281

A.3 OSO 7 – Conformity check of the UAS configuration

		LEVEL of INTEGRITY		
		Low (SAIL I, II)	Medium (SAIL III, IV)	High (SAIL V, VI)
OSO 7 Conformity check of the UAS configuration	Criterion	SOSO7.L.I	SOSO7.L.I	SOSO7.L.I
		LEVEL of ASSURANCE		
		Low (SAIL I, II)	Medium (SAIL III, IV)	High (SAIL V, VI)
	Criterion 1 (Procedures)	SOSO7C1.L.A	SOSO7C1.L.A	SOSO7C1.L.A

282

283

A.3.1 Low level of robustness (SAIL I, II)

SOSO 7.
L.I The Designer must provide recommendations for the development of UAS conformity checks by the Operator to be recorded on the SAIL Mark certificate.

SOSO 7C1.
L.A Criterion 1 – Procedures
The Designer must provide evidence of compliance with the Integrity requirements.

284

285

A.3.2 Medium level of robustness (SAIL III, IV)

286

Lower robustness level requirements to be complied with:

SOSO7.
L.I

SOSO7C1.
L.A

Additional requirements to be complied with:

SOSO7. No additional requirement.
M.I.

SOSO7C1. Criterion 1 – Procedures
M.A No additional requirement.

287

288 **A.3.3 High level of robustness (SAIL V, VI)**

289 Lower robustness level requirements to be complied with:

SOSO7. **SOSO7C1.**
L.I **L.A**

Additional requirements to be complied with:

SOSO7. No additional requirement.
H.I.

SOSO7C1. Criterion 1 – Procedures
H.A No additional requirement.

290

291 **A.4 OSO 16 – Multi crew coordination**

		LEVEL of INTEGRITY		
		Low (SAIL I, II)	Medium (SAIL III, IV)	High (SAIL V, VI)
OSO 16 Multi crew coordination	Criterion 3 (Communication devices)	N/A	SOSO16C3.M.I	SOSO16C3.M.I
		LEVEL of ASSURANCE		
		Low (SAIL I, II)	Medium (SAIL III, IV)	High (SAIL V, VI)
	Criterion 3 (Communication devices)	N/A	SOSO16C3.M.A	SOSO16C3.M.A

292

293 **A.4.1 Low level of robustness (SAIL I, II)**

294 Not applicable.

295 **A.4.2 Medium level of robustness (SAIL III, IV)**

SOSO 16C3. M.I Criterion 3 – Communication devices
 The Designer must provide the performance specifications and limitations for the communication devices to be recorded on the SAIL Mark certificate.

SOSO 16C3. M.A Criterion 3 – Communication devices
 The Designer must provide evidence of compliance with the Integrity requirements.

296

297 **A.4.3 High level of robustness (SAIL V, VI)**

298 Lower robustness level requirements to be complied with:

SOSO16C3. M.I **SOSO16C3. M.A**

Additional requirements to be complied with:

SOSO16C3. H.I. Criterion 3 – Communication devices
 No additional requirement.

SOSO16C3. H.A Criterion 3 – Communication devices
 No additional requirement.

299

300 **A.5 OSO 24 – UAS designed and qualified for adverse**

		LEVEL of INTEGRITY		
		N/A	Medium (SAIL III)	High (SAIL IV, V, VI)
OSO 24 UAS designed and qualified for adverse environmental conditions	Criterion	N/A	SOSO24.M.I	SOSO24.M.I
		LEVEL of ASSURANCE		
		N/A	Medium (SAIL III)	High (SAIL IV, V, VI)
	Criterion	N/A	SOSO24.M.A	SOSO24.M.A

301

302 **A.5.1 Medium level of robustness (SAIL III)**

SOSO24. The Designer must provide the environmental conditions which the UAS is designed to, to be recorded on the SAIL Mark certificate.
M.I

SOSO24. The Designer must provide evidence of compliance with Integrity requirements.
M.A

303

304 **A.5.2 High level of robustness (SAIL IV, V, VI)**

305 Lower robustness level requirements to be complied with:

SOSO24. **SOSO24.**
M.I. **M.A**

Additional requirements to be complied with:

SOSO24. No additional requirement.
H.I

SOSO24. No additional requirement.
H.A

306

307 **A.6 CO – Containment requirements**

		LEVEL of INTEGRITY		
		Low	Medium	High
Containment requirements	Criterion 1 (Operational volume containment)	SCORC1.L.I	SCORC1.L.I	SCORC1.L.I
	Criterion 2 (End of flight upon exit of the operational volume)	SCORC2.L.I	SCORC2.L.I	SCORC2.L.I
	Criterion 3 (Definition of the final ground risk buffer)	SCORC3.L.I	SCORC3.L.I	SCORC3.L.I
	Criterion 4 (Ground risk buffer containment)	N/A	N/A	N/A
		LEVEL of ASSURANCE		
		Low	Medium	High

	Criterion 1 (Operational volume containment)	SCORC1.L.A	SCORC1.L.A	SCORC1.L.A
	Criterion 2 (End of flight upon exit of the operational volume)	SCORC2.L.A	SCORC2.L.A	SCORC2.L.A
	Criterion 3 (Definition of the final ground risk buffer)	SCORC3.L.A	SCORC3.L.A	SCORC3.L.A
	Criterion 4 (Ground risk buffer containment)	N/A	N/A	N/A

308

309

A.6.1 Low level of robustness

SCORC1.
L.I

Criterion 1 – Operational volume containment

The Designer must provide the following aspects considered in their compliance evidence to be recorded in the SAIL Mark certificate:

- i. External systems.
- ii. Operational volume.
- iii. Particular risks.

SCORC2.
L.I

Criterion 2 – End of flight upon exit of the operational volume

The Designer must provide the procedures which initiate the immediate end of flight available to be recorded on the SAIL Mark certificate.

SCORC3.
L.I

Criterion 3 – Definition of the final ground risk buffer

The Designer must provide the ground risk buffer definition to be recorded in the SAIL Mark certificate.

SCORC
1.
L.A

Criterion 1 – Operational volume containment

The Designer must provide evidence of compliance with the Integrity requirements.

SCORC
2.
L.A

Criterion 2 – End of flight upon exit of the operational volume

The Designer must provide evidence of compliance with the Integrity requirements.

310 **SCORC 3. L.A** Criterion3 – Definition of the final ground risk buffer
 The Designer must provide evidence of compliance with the Integrity requirements.

311 **A.6.2 Medium level of robustness**

312 Lower robustness level requirements to be complied with:

SCORC1. L.I	SCORC1. L.A	SCORC2. L.I	SCORC2. L.A	SCORC3. L.I	SCORC3. L.A
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Additional requirements to be complied with:

- SCORC1. Criterion 1 – Operational volume containment
M.I No additional requirements.
- SCORC2. Criterion 2 – End of flight upon exit of the operational volume
M.I No additional requirements.
- SCORC3. Criterion 3 – Definition of the final ground risk buffer
M.I No additional requirements.
- SCORC1. Criterion 1 – Operational volume containment
M.A No additional requirements.
- SCORC2. Criterion 2 – End of flight upon exit of the operational volume
M.A No additional requirements.
- SCORC3. Criterion 3 – Definition of the final ground risk buffer
M.A No additional requirements.

314 **A.6.3 High level of robustness**

315 Lower robustness level requirements to be complied with:

SCORC1. L.I	SCORC1. L.A	SCORC2. L.I	SCORC2. L.A	SCORC3. L.I	SCORC3. L.A
----------------	----------------	----------------	----------------	----------------	----------------

Additional requirements to be complied with:

SCORC1. Criterion 1 – Operational volume containment
H.I No additional requirements.

SCORC2. Criterion 2 – End of flight upon exit of the operational volume
H.I No additional requirements.

SCORC3. Criterion 3 – Definition of the final ground risk buffer
H.I No additional requirements.

SCORC1. Criterion 1 – Operational volume containment
H.A No additional requirements.

SCORC2. Criterion 2 – End of flight upon exit of the operational volume
H.A No additional requirements.

SCORC3. Criterion 3 – Definition of the final ground risk buffer
H.A No additional requirements.

316

317 **A.7 CT – Containment requirements (tether)**

		LEVEL of INTEGRITY		
		Low	Medium	High
Containment requirements (tether)	Criterion 1 (Technical design)	SCOTC1.L.I	SCOTC1.L.I	SCOTC1.L.I
	Criterion 2 (Procedures)	SCOTC2.L.I	SCOTC2.L.I	SCOTC2.L.I
		LEVEL of ASSURANCE		
		Low	Medium	High
	Criterion 1 (Technical design)	SCOTC1.L.A	SCOTC1.L.A	SCOTC1.L.A
	Criterion 2 (Procedures)	SCOTC2.L.A	SCOTC2.L.A	SCOTC2.L.A SCOTC2.H.A

318

319

A.7.1 Low level of robustness

SCOTC1. Criterion 1 – Technical design
L.I (a) The Designer must provide the length of the tether to be recorded in the SAIL Mark certificate.
 (b) The Designer must provide the ultimate loads to be recorded in the SAIL Mark certificate.

SCOTC2. Criterion 2 – Procedures
L.I The Designer must provide the procedures to install and periodically inspect the condition of the tether to be recorded in the SAIL Mark certificate.

SCOTC1. Criterion 1 – Technical design
L.A The Designer must provide evidence of compliance with Integrity requirements.

SCOTC2. Criterion 2 – Procedures
L.A The Designer must provide evidence of compliance with Integrity requirements.

320

321

A.7.2 Medium level of robustness

322

Lower robustness level requirements to be complied with:

SCOTC1. L.I	SCOTC1. L.A	SCOTC2. L.I	SCOTC2. L.A
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Additional requirements to be complied with:

SCOTC1. Criterion 1 – Technical design
M.I No additional requirements.

SCOTC2. Criterion 2 – Procedures
M.I No additional requirements.

SCOTC1. Criterion 1 – Technical design
M.A No additional requirements.

SCOTC2. Criterion 2 – Procedures
M.A No additional requirements.

323

A.7.3 High level of robustness

324

Lower robustness level requirements to be complied with:

325

SCOTC1. L.I	SCOTC1. L.A	SCOTC2. L.I	SCOTC2. L.A
-----------------------	-----------------------	-----------------------	-----------------------

Additional requirements to be complied with:

SCOTC1. Criterion 1 – Technical design
H.I No additional requirements.

SCOTC2. Criterion 2 – Procedures
H.I No additional requirements.

SCOTC1. Criterion 1 – Technical design
H.A No additional requirements.

SCOTC2. Criterion 2 – Procedures
H.A The Designer must provide the flight envelope to be recorded in the SAIL Mark certificate.

326

A.8 M2 mitigation (optional)

327

		LEVEL of INTEGRITY		
		Low	Medium	High
M2 – effects of UA impact dynamics are reduced.	Criterion 2 (Procedures)	N/A	SM2C2.M.I	SM2C2.M.I
		LEVEL of ASSURANCE		
		Low	Medium	High
	Criterion 2 (Procedures)	N/A	SM2C2.M.A	SM2C2.M.A

328

329

A.8.1 Medium level of robustness

SM2C2. Criterion 2 – Procedures

M.I

- (a) The Designer must provide installation instructions for the equipment used to reduce the effect of the UA impact dynamics to be recorded in the SAIL Mark certificate.
- (b) The Designer must provide maintenance instructions for the equipment used to reduce the effect of the UA impact dynamics

SM2C2. Criterion 2 – Procedures

M.A

The Designer must provide evidence of compliance with Integrity requirements.

330

331

A.8.2 High level of robustness

332

Lower robustness level requirements to be complied with:

SM2C2.

M.I

SM2C2.

M.A

Additional requirements to be complied with:

SM2C2. Criterion 2 – Procedures

H.I

No additional requirements.

SM2C2. Criterion 2 – Procedures

H.A

No additional requirements.

333

334

335 Appendix B | SAIL Mark Certificate template

336 This section describes the contents of the future SAIL Mark Certificate. The SAIL Mark
337 Certificate format will be developed post-consultation.

- 338 1. Certificate unique ID and revision no.
- 339 2. UAS Designer name.
- 340 3. RAE(F) name.
- 341 4. UAS configuration description:
 - 342 4.1. Model.
 - 343 4.2. Part Number (P/N).
 - 344 4.3. Serial Number (S/N) (where applicable).³
 - 345 4.4. Maximum UA characteristic dimension
 - 346 4.5. Weight
 - 347 4.6. Maximum speed
 - 348 4.7. Modification state of UAS and equipment, equipment model.
- 349 5. SAIL number (highest achieved).
- 350 6. Operational volume:
 - 351 6.1. GRC (highest achieved).
 - 352 6.2. ARC (highest achieved).
- 353 7. Containment robustness level (highest achieved)
- 354 8. M2 mitigation:
 - 355 8.1. Level of robustness achieved.
 - 356 8.2. Instructions for installation and maintenance.
- 357 9. OSO 3:
 - 358 9.1. Maintenance instructions and requirements (low robustness).
 - 359 9.2. Scheduled maintenance instructions (medium robustness).
- 360 10. OSO 5:
 - 361 10.1. External systems (low robustness). Note: this is provided through

³ It is likely that no S/N will be displayed on the SAIL Mark certificate, as the certificate will pertain to many individual UAS with unique S/Ns. Instead, a list of S/Ns to which this certificate applies, will be held by the CAA. This schedule of S/N should be read in conjunction with the SAIL Mark certificate to confirm whether an individual UAS holds a SAIL Mark Certificate.

- 362 Containment criterion 1.
- 363 11. OSO 6
- 364 11.1. C3 link performance specification (low robustness).
- 365 11.2. RF spectrum (low robustness).
- 366 11.3. Environmental conditions (low robustness).
- 367 12. OSO 7:
- 368 12.1. Recommendations for UAS conformity checks.
- 369 13. OSO 16:
- 370 13.1. Communication devices performance specification and limitations.
- 371 14. OSO 24:
- 372 14.1. Environmental conditions.
- 373 15. CO - Containment criterion 1:
- 374 15.1. External systems (low robustness).
- 375 15.2. Operational volume (low robustness).
- 376 15.3. Particular risks (low robustness).
- 377 16. CO - Containment criterion 2:
- 378 16.1. Procedures for immediate end of flight (low robustness).
- 379 17. CO - Containment criterion 3:
- 380 17.1. Ground risk buffer definition (low robustness).
- 381 18. CT – Containment tether criterion 1:
- 382 18.1. Length of tether (low robustness).
- 383 18.2. Ultimate loads (low robustness).
- 384 19. CT - Containment tether criterion 2:
- 385 19.1. procedures to install/inspect the tether (low robustness).
- 386 20. CT - Containment tether criterion 2:
- 387 20.1. flight envelope (high robustness).
- 388 21. Statement confirmed as read and agreed by the Designer:
- 389 21.1. A major modification to the UAS configuration will revoke the SAIL Mark
- 390 certificate.
- 391

392 22. M2 mitigation requirements which have been complied with (optional):

393

M2 mitigation requirements	
Medium	High
M2C1.M.I(a)	M2C1.M.I(a)
M2C1.M.I(b)	M2C1.M.I(b)
M2C1.M.I(c)	M2C1.M.I(c)
	M2C1.H.I(a)
	M2C1.H.I(b)
M2C1.M.A(a)	
M2C1.M.A(b)	
	M2C1.H.A
M2C2.M.A(a)	M2C2.M.A(a)
M2C2.M.A(b)	M2C2.M.A(b)
M2C2.M.A(d)	M2C2.M.A(d)
	M2C2.H.A(a)
SM2C2.M.I(a)	SM2C2.M.I(a)
SM2C2.M.I(b)	SM2C2.M.I(b)
SM2C2.M.A	SM2C2.M.A

394

395

396 23. OSO requirements which have been complied with:

397

OSO requirements					
SAIL I	SAIL II	SAIL III	SAIL IV	SAIL V	SAIL VI
		OSO2.L.I(a)	OSO2.L.I(a)	OSO2.L.I(a)	OSO2.L.I(a)
		OSO2.L.I(b)	OSO2.L.I(b)	OSO2.L.I(b)	OSO2.L.I(b)
		OSO2.L.I(c)	OSO2.L.I(c)	OSO2.L.I(c)	OSO2.L.I(c)
		OSO2.L.I(d)	OSO2.L.I(d)	OSO2.L.I(d)	OSO2.L.I(d)
			OSO2.M.I(a)	OSO2.M.I(a)	OSO2.M.I(a)

OSO requirements					
SAIL I	SAIL II	SAIL III	SAIL IV	SAIL V	SAIL VI
			OSO2.M.I(b)	OSO2.M.I(b)	OSO2.M.I(b)
			OSO2.M.I(c)	OSO2.M.I(c)	OSO2.M.I(c)
			OSO2.M.I(d)	OSO2.M.I(d)	OSO2.M.I(d)
			OSO2.M.I(e)	OSO2.M.I(e)	OSO2.M.I(e)
			OSO2.M.I(f)	OSO2.M.I(f)	OSO2.M.I(f)
				OSO2.H.I(a)	OSO2.H.I(a)
				OSO2.H.I(b)	OSO2.H.I(b)
		OSO2.L.A(a)	OSO2.L.A(a)	OSO2.L.A(a)	OSO2.L.A(a)
		OSO2.L.A(b)	OSO2.L.A(b)	OSO2.L.A(b)	OSO2.L.A(b)
			OSO2.M.A	OSO2.M.A	OSO2.M.A
				OSO2.H.A	OSO2.H.A
SOSO3.L.I	SOSO3.L.I	SOSO3.L.I	SOSO3.L.I	SOSO3.L.I	SOSO3.L.I
		SOSO3.M.I	SOSO3.M.I	SOSO3.M.I	SOSO3.M.I
SOSO3C1.L.A	SOSO3C1.L.A	SOSO3C1.L.A	SOSO3C1.L.A	SOSO3C1.L.A	SOSO3C1.L.A
			OSO4.L.I		
				OSO4.M.I	
					OSO4.H.I
			OSO4.L.A(a)	OSO4.L.A(a)	OSO4.L.A(a)
			OSO4.L.A(b)	OSO4.L.A(b)	OSO4.L.A(b)
			OSO4FT.L.I		
			OSO4FT.L.A(a)		
			OSO4FT.L.A(b)		
		OSO5.L.I	OSO5.L.I		
			OSO5.M.I		
				OSO5.H.I(a)	OSO5.H.I(a)
				OSO5.H.I(b)	OSO5.H.I(b)
				OSO5.H.I(c)	OSO5.H.I(c)
				OSO5.H.I(d)	OSO5.H.I(d)

OSO requirements					
SAIL I	SAIL II	SAIL III	SAIL IV	SAIL V	SAIL VI
				OSO5.H.I(e)	OSO5.H.I(e)
		OSO5.L.A(a)	OSO5.L.A(a)	OSO5.L.A(a)	OSO5.L.A(a)
			OSO5.M.A(a)	OSO5.M.A(a)	OSO5.M.A(a)
			OSO5.M.A(b)	OSO5.M.A(b)	OSO5.M.A(b)
	SOSO6.L.I(a)	SOSO6.L.I(a)	SOSO6.L.I(a)	SOSO6.L.I(a)	SOSO6.L.I(a)
	SOSO6.L.I(b)	SOSO6.L.I(b)	SOSO6.L.I(b)	SOSO6.L.I(b)	SOSO6.L.I(b)
	SOSO6.L.A	SOSO6.L.A	SOSO6.L.A	SOSO6.L.A	SOSO6.L.A
SOSO7.L.I	SOSO7.L.I	SOSO7.L.I	SOSO7.L.I	SOSO7.L.I	SOSO7.L.I
SOSO7C1.L.A	SOSO7C1.L.A	SOSO7C1.L.A	SOSO7C1.L.A	SOSO7C1.L.A	SOSO7C1.L.A
		OSO16C3.M.I(a)	OSO16C3.M.I(a)	OSO16C3.M.I(a)	OSO16C3.M.I(a)
		OSO16C3.M.I(b)	OSO16C3.M.I(b)	OSO16C3.M.I(b)	OSO16C3.M.I(b)
				OSO16C3.H.I(a)	16C3.H.I(a)
				OSO16C3.H.I(b)	16C3.H.I(b)
		OSO16C3.M.A(a)	OSO16C3.M.A(a)	OSO16C3.M.A(a)	16C3.M.A(a)
		OSO16C3.M.A(b)	OSO16C3.M.A(b)	OSO16C3.M.A(b)	16C3.M.A(b)
		SOSO16C3.M.I	SOSO16C3.M.I	SOSO16C3.M.I	S16C3.M.I
		SOSO16C3.M.A	SOSO16C3.M.A	SOSO16C3.M.A	S16C3.M.A
		OSO18.L.I(a)			
		OSO18.L.I(b)			
			18.M.I(a)	OSO18.M.I(a)	18.M.I(a)
			18.M.I(b)	OSO18.M.I(b)	18.M.I(b)
		OSO18.L.A	OSO18.L.A	OSO18.L.A	OSO18.L.A
			OSO18.M.A	OSO18.M.A	OSO18.M.A

OSO requirements					
SAIL I	SAIL II	SAIL III	SAIL IV	SAIL V	SAIL VI
		OSO19.L.I			
			OSO19.M.I	OSO19.M.I	OSO19.M.I
		OSO19.L.A(a)	OSO19.L.A(a)	OSO19.L.A(a)	OSO19.L.A(a)
		OSO19.L.A(b)	OSO19.L.A(b)	OSO19.L.A(b)	OSO19.L.A(b)
	OSO20.L.I(a)	OSO20.L.I(a)	OSO20.L.I(a)	OSO20.L.I(a)	OSO20.L.I(a)
	OSO20.L.I(b)	OSO20.L.I(b)	OSO20.L.I(b)	OSO20.L.I(b)	OSO20.L.I(b)
					OSO20.H.I(a)
					OSO20.H.I(b)
					OSO20.H.I(c)
	OSO20.L.A(a)	OSO20.L.A(a)			
	OSO20.L.A(b)	OSO20.L.A(b)			
	OSO20.L.A(d)	OSO20.L.A(d)			
			OSO20.M.A(a)	OSO20.M.A(a)	OSO20.M.A(a)
			OSO20.M.A(b)	OSO20.M.A(b)	OSO20.M.A(b)
			OSO20.M.A(c)	OSO20.M.A(c)	OSO20.M.A(c)
			OSO20.M.A(e)	OSO20.M.A(e)	OSO20.M.A(e)
	OSO20FT.L.A(a)	OSO20FT.L.A(a)	OSO20FT.L.A(a)		
	OSO20FT.L.A(b)	OSO20FT.L.A(b)	OSO20FT.L.A(b)		
		OSO24.M.I	OSO24.M.I	OSO24.M.I	OSO24.M.I
			OSO24.H.I	OSO24.H.I	OSO24.H.I
		OSO24.M.A(a)	OSO24.M.A(a)	OSO24.M.A(a)	OSO24.M.A(a)
		OSO24.M.A(b)	OSO24.M.A(b)	OSO24.M.A(b)	OSO24.M.A(b)
		OSO24FT.M.A(a)	OSO24FT.M.A(a)		
		OSO24FT.M.A(b)	OSO24FT.M.A(b)		
		SOSO24.M.I	OSOS24.M.I	SOSO24.M.I	SOSO24.M.I

OSO requirements					
SAIL I	SAIL II	SAIL III	SAIL IV	SAIL V	SAIL VI
		SOSO24.M.A	OSOS24.M.A	SOSO24.M.A	SOSO24.M.A

398

399

400 24. Containment requirements which have been complied with:

401

Containment requirements		
Low	Medium	High
CORC1.L.I	CORC1.L.I	
		CORC1.H.I
CORC2.L.I	CORC2.L.I	CORC2.L.I
CORC3.L.I	CORC3.M.I(a)	CORC3.M.I(a)
	CORC3.M.I(b)	CORC3.M.I(b)
	CORC3.M.I(c)	CORC3.M.I(c)
	CORC3.M.I(d)	CORC3.M.I(d)
	CORC4.M.I(a)	CORC4.M.I(a)
	CORC4.M.I(b)	CORC4.M.I(b)
CORC1.L.A(a)	CORC1.L.A(a)	CORC1.L.A(a)
CORC1.L.A(b)	CORC1.L.A(b)	CORC1.L.A(b)
CORC1.L.A(d)	CORC1.L.A(d)	CORC1.L.A(d)
CORC2.L.A(a)		
CORC2.L.A(c)		
CORC2.L.A(d)		
	CORC2.M.A(a)	CORC2.M.A(a)
	CORC2.M.A(b)	CORC2.M.A(b)
CORC3.L.A(a)	CORC3.L.A(a)	CORC3.L.A(a)
CORC3.L.A(b)	CORC3.L.A(b)	CORC3.L.A(b)
	CORC4.M.A(a)	CORC4.M.A(a)
	CORC4.M.A(b)	CORC4.M.A(b)

Containment requirements		
SCORC1.L.I	SCORC1.L.I	SCORC1.L.I
SCORC2.L.I	SCORC2.L.I	SCORC2.L.I
SCORC3.L.I	SCORC3.L.I	SCORC3.L.I
SCORC1.L.A	SCORC1.L.A	SCORC1.L.A
SCORC2.L.A	SCORC2.L.A	SCORC2.L.A
SCORC3.L.A	SCORC3.L.A	SCORC3.L.A

402

403

404 25. Containment (tether) requirements which have been complied with:

405

Containment (tether) requirements		
Low	Medium	High
COTC1.L.I(a)	COTC1.L.I(a)	COTC1.L.I(a)
COTC1.L.I(b)	COTC1.L.I(b)	COTC1.L.I(b)
COTC1.L.I(c)	COTC1.L.I(c)	COTC1.L.I(c)
COTC1.L.I(d)	COTC1.L.I(d)	COTC1.L.I(d)
COTC2.L.I	COTC2.L.I	COTC2.L.I
COTC1.L.A(a)	COTC1.L.A(a)	COTC1.L.A(a)
COTC1.L.A(b)	COTC1.L.A(b)	COTC1.L.A(b)
COTC1.L.A(c)	COTC1.L.A(c)	COTC1.L.A(c)
COTC2.L.A(a)	COTC2.L.A(a)	COTC2.L.A(a)
COTC2.L.A(b)	COTC2.L.A(b)	COTC2.L.A(b)
	COTC2.M.A(a)	COTC2.M.A(a)
	COTC2.M.A(b)	COTC2.M.A(b)
		COTC2.H.A(a)
SCOTC1.L.I(a)	SCOTC1.L.I(a)	SCOTC1.L.I(a)
SCOTC1.L.I(b)	SCOTC1.L.I(b)	SCOTC1.L.I(b)
SCOTC2.L.I	SCOTC2.L.I	SCOTC2.L.I
SCOTC1.L.A	SCOTC1.L.A	SCOTC1.L.A

Containment (tether) requirements		
SCOTC2.L.A	SCOTC2.L.A	SCOTC2.L.A
		SCOTC2.H.A

406