

## DEF STAN 00-970 NOTICE OF PROPOSED AMENDMENT (Def Stan 00-970-NPA)

**TITLE OF PROPOSAL: Review and Re-Write of Part 7 to Issue 4**

Stage of Amendment: Interim Issue

Def Stan 00-970 NPA Serial No:	2014-003
Unsatisfactory Report Serial No:	N/A
MAA Originator:	Grade/Rank Name Redacted Post MAA-Cert-ADS2-DS970RW

Affected Part: (including paragraphs)	The whole of Def Stan 00-970 Part 7 (rotorcraft)
Cross-reference to other relevant amendment proposals or documents:	EASA CS-29

<b>ADS Point of Contact details</b>	
Rank/Grade and Name:	As above
Telephone Number mil/civ;	93510 2363 01935 45 2363
Civilian Email address:	maa-cert-ads2-ds970rw@mod.uk

**Part 1 (for issue to User Community)**

**INTRODUCTION (Not more than 250 words)**  
 Def Stan 00-970 Part 7 Rotorcraft has not been reviewed or rewritten for many years and contained out of date technology & reference to organisations that no longer exist. It has now been reviewed and rewritten and the following changes incorporated:

1. Part 7 has been rewritten into three column format (Requirement, Acceptable Means of Compliance, Guidance) in line with the remaining "Parts" of 00-970 (Fixed Wing, RPAS etc).
2. The whole of Part 7 has been 'Mapped' to European Design Standard CS-29, & corresponding Requirements identified (Note at bottom of each page - these not to be used as alternatives)
3. Part 7 has been rewritten into the same physical format (chapters, headings, tiles) as Civil Standard EASA CS-29, and three Sections to assist future cross reference between standards.

- Section 1 - Introduction
- Section 2 - Design Requirements (Sub Sections A to G mirror the titles in CS-29)
- Section 3 - Military Specific Items

4. Part 7 has been transferred into DOORS software. Part 7 will in future be maintained and updated in DOORS software (DOORS creates an automatic audit trail of all changes). The MAA will make a formal DOORS version of Part 7 available as a download during 2014.

**The new text will be clearly identifiable within Annex A.**

## SUMMARY OF PROPOSED AMENDMENT

**Change:** *See Annex A*

**Impact Assessment:**

**Objective:** Clarification of all Requirements

**Risk Assessment:** The impact of not incorporating the recommended changes is the possibility of misinterpretation of the requirement

**Courses of Action.**

1. **Do nothing.** The option to do nothing is not desirable for the following reason. Not incorporating the changes will result in continuing misunderstanding of the requirements, leading to possible ambiguity of the requirements and lack of full compliance.

2. **Partial Amendment.** Due to the major nature of the changes, partial amendment is not considered an option.

3. **Full Amendment.** There is no reason that full implementation of all the changes should not be completely feasible. The changes will remove ambiguity within 00-970. It is also considered that the additional detail will be complied with in full. Retrospective mandate is not considered necessary.

**Preferred Course of Action.** Full Amendment

**Costs and Benefits:**

1. **Do nothing.** There is little benefit of the do nothing option, which could result in increased non compliance with Def Stan 00-970.
2. **Partial Amendment - No benefit**
3. **Full Amendment.** Full amendment will clarify Def Stan 00-970 Part 7 and will reduce ambiguity, possibly resulting in improved overall compliance with the document. The changes proposed represent current practice and would have no or little economic impact.

**Consultation period ends: 15<sup>th</sup> August 2014**

The consultation period for this proposed amendment ends on the stated date. Please send your feedback via email to [MAA-Cert-ADSGroup@mod.uk](mailto:MAA-Cert-ADSGroup@mod.uk).

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**Part 2 (for MAA internal use)**

**Log of Comments** (to be completed once the consultation period has ended).

Comment reference	Date	From (name)	Post	Précis or Topic of Comment	MAA Response

**Recap of Proposal:** *A short summary of the proposal amendment including what changes were incorporated following the consultation period.*

**Recommendation.** *This section will be completed once all the comments have been received. The recommendation is for the relevant Head of Division to approve the proposal.*

**Approval.** *This section will detail exactly what has been approved and by whom, and confirm the date for the amendment to be incorporated as well as the date the NPA should be reviewed to determine what the effects of the amendment were in terms of meeting the objective of the change, if there were any unintended consequences and establishing whether the estimated costs were correct.*

Accepted changes will be authorised at the following levels:

- Changes requiring retrospective mandation: 2 \* D/Tech
- Changes not requiring retrospective mandating, but introduce novel or contentious requirements or resulting in major changes to requirements: 2\* Head of Reg & Cert
- Changes not requiring retrospective mandating but having a significant engineering impact: 1\* Head of Reg & Cert
- Changes not requiring retrospective mandating but having a Minor engineering impact: OF4/B2
- Changes deemed as administrative only: C1 or Sqdn/Ldr.

Approved by: **FOR NPA CONSULTATION**

Signature:	<b>(Original Signed)</b>
Name:	Redacted
Rank/Grade:	Wg. Cdr.
Post:	MAA-Cert-S and ADS
Date signed:	2 <sup>nd</sup> July 2014.
Date for amendment to be incorporated:	TBC



**Part 3 - NOTIFICATION OF AUTHORIZED AMENDMENT (Def Stan 00-970 NAA)**

Document Part:		Sub-Part:	
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Unsatisfactory Report Reference:		NPA Reference:	
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Originator:		Date:	
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Amendment to be Incorporated on	<b>XX/XXX/XX</b>
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**APPROVAL**

*This Def Stan 00-970 NPA has been approved by the MAA-Cert-S and ADS on behalf of DG MAA*

**INCORPORATION**

*The amendment will be incorporated in....*

***Signed (IAW with part 2).***

**for DG MAA**

## ANNEX A – SUMMARY OF PROPOSED CHANGES

1. Whole of 00-970 Part 7 changed to revised format (defined in ‘Introduction’ at Part 1 of this Form).
2. Additional changes below also incorporated.

(Note: Issue 3 of Part 7 (rotorcraft) is available on the DStan websites - <http://dstan.uwh.diif.r.mil.uk> - MoD Intranet or [www.dstan.mod.uk](http://www.dstan.mod.uk) - Internet)

### ADDITIONAL CHANGES:

#### Subpart A

##### **Para 1.12.1 (was para 11.1 & Leaflet 100)**

**Insert:** Subpart D Item 37 formerly Leaflet 715 & Part 13 leaflet 2

##### **Para 1.13.2.1 (was para 12.2.1 & Leaflet 100)**

**Insert:** Part 13 Para 1.1.1.3

##### **Para 1.13.2.2 (was para 12.2.2 & Leaflet 100)**

**From:** All external lighting shall be dimmable. An ON/OFF/DIM switch located on the throttle is a desirable feature.

**To:** All external lighting shall be dimmable. An ON/OFF/DIM switch located on the collective lever is a desirable feature. Part 13 Para 1.1.1.4

##### **Para 1.13.2.3 (was para 12.2.3 & Leaflet 100)**

**Insert:** Part 13 Para 1.1.1.5

### Subpart C

#### **Para 11.3.4.3 (was para 2.4.3 & Leaflet 309)**

**From:** The design of locking devices for control surfaces shall be such that under routine checking procedures the pilot will be aware that they are applied. It shall be impossible to apply take off power with any lock engaged.

**To:** The design of locking devices for control surfaces shall be such that under routine checking procedures the pilot will be aware that they are applied.

### Subpart D

#### **Para 20.4.2.1 (was paras 3.2.1 & 3.2.2 & Leaflet 501)**

**Delete:** Leaflet 115

**Insert:** Leaflet 108

#### **Para 34.13.3.1 (was para 12.3.2 & Leaflet 105)**

**From:** Auditory signals used for warning purposes shall conform with the following requirements:

(i) Standard Warning System (see leaflet 107 para 14.2). The warning signal shall be in accordance with the requirements of Specification EL1960.

**To: (AMC Column):** Auditory signals used for warning purposes shall conform with the following requirements:

(i) Standard Warning System. The warning signal shall be in accordance with the requirements of STANAG 3370.

**(Guidance Column):** (See leaflet 107 Para 14.2)

#### **Para 34.13.4.1 (was para 12.4.1, 12.4.2, 12.4.3 & Leaflet 105)**

**From:** In multi-seat rotorcraft, a signal assembly, operable from the first pilots station (see leaflet 107, Table 3 Item 1) shall be installed to provide each other crew member with a visual signal commanding him to abandon the rotorcraft. The signal at each crew station shall be an illuminated red warning sign, labelled ABANDON AIRCRAFT. Each warning light shall be installed in a prominent position and shall have no dimming facilities.

**To:** Delete paragraph 34.13.4 entirely.

**Para 34.14.2.1 (was para 13.2.1 & Leaflet 105)**

**From:** The design of the legends used for indicators shall be in accordance with the numeral and letter form requirements of DEF STAN 66 – 26 (Pt 6)

**To:** The design of the legends used for indicators shall be in accordance with the numeral and letter form requirements of STANAG 3224; 3370; 3647

**Para 34.17.6.1 (was para 15.7.1 & Leaflet 105)**

**From:** A wander lamp consisting of a tungsten-white floodlight, fitted with an alternative red filter, shall normally be fitted at each pilot's station.

**To:** A wander lamp consisting of a tungsten-white floodlight, fitted with an alternative red filter, will normally be fitted at each pilot's station.

**Para 34.19.1 (was para 17.5 & Leaflet 105)**

**From:** At least one kit shall be accessible from the outside of the rotorcraft in the event of a crash landing and its location shall be marked in accordance with the requirements of AP119A-0601-0 Leaflet 3.

**To:** At least one kit shall be located towards the rear of the rotorcraft, and its location shall be marked in accordance with the requirements of DAP119A-0601 Series.

**Para 34.22.1 (was para 20.1 & Leaflet 105)**

**From:** One hand extinguisher shall be easily accessible from outside as well as inside the rotorcraft and its location shall be marked in accordance with AP119A-0601-0 Leaflet 3. It is desirable that this hand extinguisher be stowed together with, or adjacent to, the fireman's axe and heat resisting gloves called for in para 34.23.2

**To:** One hand extinguisher shall have its location marked in accordance with DAP119A 0601 Series. It is desirable that this hand extinguisher be stowed together with, or adjacent to, the fireman's axe and heat resisting gloves called for in para 34.23.2.

**Para 34.26.1 (was para 24.1 & Leaflet 105)**

**Insert:** Pt 13 Section 1.6 Clause 1.6.6

**Para 38.15.3.1 (was para 14.2.2 Leaflet 107)**

**From:** The system shall consist of red flashing attention lights, a master audio warning signal and a central panel which indicates the particular emergency. The system shall be designed in accordance with Specification EL 1960.

**To:** The system shall consist of red flashing attention lights, a master audio warning signal and a central panel which indicates the particular emergency. The system shall be designed in accordance with STANAG 3370.

**Para 38.15.4.1 (was para 14.3 & leaflet 107)**

**From:** An Amber, resettable Master Caution Light situated on a central panel together with, & operating in parallel with selected indicators, shall be fitted to denote secondary types of malfunction or failure.

**To:** An Amber, resettable Master Caution Light situated on a central panel together with, & operating in parallel with selected indicators, shall be fitted to denote secondary types of malfunction or failure. STANAG 3370.

**Para 38.19.3 (was Item 1 Table 3 Leaflet 107)**

**From:** Abandon Aircraft Command Visual Signal Control

**To:** Delete Item 1 entirely in Table 3 of Leaflet 107 See note.

**Para 42.5.1(vii) (was para 4.1 vii & Leaflet 102)**

**From:** The emergency escape lighting system shall provide not less than 500 cd/m<sup>2</sup> ambient illumination at all exits and in the centre of aisle ways leading to exits measured at seat arm rest height and in all aircrew stations and passenger compartments.

**To:** The emergency escape lighting system shall provide not less than 500 cd/m<sup>2</sup> ambient luminance at all exits and in the centre of aisle ways leading to exits measured at seat arm rest height and in all aircrew stations and passenger compartments.

**Para 48.4.1.1 (was para 3.1.2 & Leaflet 708)**

**Insert:** AvP 118 Electromagnetic Compatibility in Aircraft Systems

**Para 48.5.2.1**

**Delete:** Para 3

**Insert:** Para 48.5

**Para 48.5.3.1 (was para 4.3 & Leaflet 708)**

**Insert:** STANAG 3659 & DEF STAN 59 - 113

**Para 48.5.7.1 (under References)**

**Delete:** Def Stan 61-15 (standard cancelled & superseded)

**Add: Note:** Reference 2 should read Def Stan 59-113 See note.



## **Subpart F**

### **Para 5.8.2.4 (was para 7.2.4 & Leaflet 716)**

**From:** Pipe to pipe couplings and pipe connections to instruments and associated equipment shall be in accordance with DEF STAN 47-25.

**To:** Pipe to pipe couplings and pipe connections to instruments and associated equipment shall be in accordance with AGS 3914 Pitot systems and AGS 3915 Static systems.

### **Para 5.9.3.1 (was para 8.3.1 & Leaflet 716)**

**From:** Where flexible hoses are required (e.g., for connecting to pitot-static instruments or associated equipment fitted with adaptors conforming to DEF STAN 47-17, Table 1) they shall be in accordance with AGS 3914 for pitot lines and AGS 3915 for static lines.

**To:** Where flexible hoses are required they shall be in accordance with AGS 3914 for pitot lines and AGS 3915 for static lines.

## **Subpart G**

### **Para 1.2.2.4 (was para 1.2.7 & Leaflet 101)**

**From:** All parts of the rotorcraft and those instruments and equipment in the cabin which are essential for use after a failure of the pressurisation or air conditioning system shall function satisfactorily after such a failure.

**To:** All parts of the rotorcraft and those instruments and equipment in the cabin which are essential for use after a failure of air conditioning system shall function satisfactorily after such a failure.

### **Para 2.9.1 (was para 8.1 & 8.2 & Leaflet 103)**

**From:** The white gloss finish (except for the markings required by paras 3, 4, 5 & 6 above)

**To:** The white gloss finish (except for the markings required by paras 2.4, 2.5, 2.6 & 2.7 above)

**From:** The finish required by para 8.1 shall not prejudice any camouflage

**To:** The finish required by para 2.9 shall not prejudice any camouflage.

**Delete:** Sub para (v) Bomb bays.



### SECTION 3

#### Para 1.10.6.7 (was para 9.6.7 & Leaflet 710)

**From:** In-line splices shall not normally be used. Where their use is unavoidable the approval of D.A. Arm shall be obtained. The location of these splices shall be clearly defined in the rotorcraft drawings and Air Publications.

**To:** Cable splices shall not be used. Pt 13 Clause 3.2.7

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