

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

TITLE OF PROPOSAL: Cargo Restraint – Amendment to Guidance

Stage of Amendment: Draft

| | |
|-------------------------------------|-------------------------------------|
| Def Stan 00-970 NPA Serial No: | 2013/002 |
| Unsatisfactory Report Serial No: | 2013/001 |
| MAA Originator: | C2 R A Bennett-Jones MAA-Cert-ADS1a |

| | |
|---|---------------------------------|
| Affected Part: (including paragraphs) | Part 1 Section 4 Clause 4.22.48 |
| Cross-reference to other relevant amendment proposals or documents: | |

| | |
|-------------------------------------|---------------------------|
| ADS Point of Contact details | |
| Rank/Grade and Name: | As above |
| Telephone Number mil/civ; | 9679 35109 030 679 35109 |
| Civilian Email address: | MAA-Cert-ADS Group@mod.uk |

Part 1 (for issue to User Community)

INTRODUCTION (Not more than 250 words)

Enter here a brief explanation of why NPA is being issued, i.e. what does the amendment hope to achieve, by when and how:

The current wording requires a dynamic energy-based analysis of cargo restraint schemes, which is impractical and which exceeds the equivalent civil requirements. This NPA removes the need to conduct a dynamic analysis but retains the requirement to conduct a static strength analysis of the restraint schemes. The ability to conduct a

dynamic analysis of cargo restraint schemes is included in the guidance material to provoke consideration of that approach amongst the regulated community.

The new text will be clearly identifiable within Annex A.

SUMMARY OF PROPOSED AMENDMENT

Change: *See Annex A*

Impact Assessment:

Objective: Clarification of the guidance

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 administrative changes will result in continuing misunderstanding of the requirement, leading to possible ambiguity of the requirement and lack of full compliance.
2. **Partial Amendment** – Due to the minor nature of the change partial amendment is not considered.
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 highly likely that the additional detail will be complied with in full. Retrospective mandation is not considered necessary.

Preferred Course of Action. 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 1 and will reduce ambiguity, possibly resulting in improved overall compliance with the document. The changes proposed here represent current practice and would have no or little economic impact.

Consultation period ends: 05 April 2013

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

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 |
|-------------------|------|-------------|------|----------------------------|--------------|
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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 mandate: 2 *
- Changes not requiring retrospective mandate but having an engineering impact: 1*
- Changes deemed as administrative only: C1 or Equivalent.

Approved by:

| | |
|--|--|
| Signature: | |
| Name: | |
| Rank/Grade: | |
| Post: | |
| Date signed: | |
| Date for amendment to be incorporated: | |



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

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|----------------|------------|-----------|-------------|
| Document Part: | <i>One</i> | Sub-Part: | <i>Four</i> |
|----------------|------------|-----------|-------------|

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| Unsatisfactory Report Reference: | <i>2013/001</i> | NPA Reference: | <i>2013/002</i> |
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| | | | |
|-------------|--|-------|--|
| Originator: | | Date: | |
|-------------|--|-------|--|

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|---------------------------------|------------------|
| Amendment to be Incorporated on | XX/XXX/XX |
|---------------------------------|------------------|

APPROVAL

This Def Stan 00-970 NPA has been approved by the xxxx on behalf of DG MAA

INCORPORATION

The amendment will be incorporated in....

Signed (IAW with part 2).

for DG MAA



Annex A

EXISTING TEXT (AT ISSUE 10)

| CARGO AND FREIGHT | | |
|---|--|---|
| <p>4.22.48 Wherever it can be reasonably foreseen that, if cargo or freight moved or broke free during a crash landing or ditching it would:</p> <ul style="list-style-type: none">(a) cause injury to crew or other occupants,(b) cause a fire,(c) prevent the use of an emergency exit,(d) prevent the use of emergency equipment,(e) prevent access to items which might be needed by the crew after the crash, <p>then it shall be restrained to meet the relevant requirements of 4.22.14 - 4.22.16 in conjunction with Table 35 or 41 as appropriate.</p> | <p>For Category C aeroplanes compliance with the 9g longitudinal forward static inertia requirement could be achieved by restraining the cargo to withstand the normal in-flight and ground loads (not less than 3g in the longitudinal forward direction), provided none of the conditions in 4.22.48 (b) to (e) are met and provided that Barrier Safety Nets are employed.</p> | <p>Barrier Safety Nets provide protection to occupants forward of the cargo by withstanding the forces, within a defined expansion zone, resulting from a 9g forward acceleration by the cargo.</p> |



REPLACEMENT TEXT

| CARGO AND FREIGHT | | |
|--|--|---|
| <p>4.22.48 Wherever it can be reasonably foreseen that, if cargo or freight moved or broke free during a crash landing or ditching it would:</p> <ul style="list-style-type: none">(a) cause injury to crew or other occupants,(b) cause a fire,(c) prevent the use of an emergency exit,(d) prevent the use of emergency equipment,(e) prevent access to items which might be needed by the crew after the crash, <p>then it shall be restrained to meet the relevant requirements of 4.22.14 and 4.22.16(a) in conjunction with Table 35 or 41 as appropriate.</p> | <p>For Category C aeroplanes compliance with the 9g longitudinal forward static inertia requirement could be achieved by restraining the cargo to withstand the normal in-flight and ground loads (not less than 3g in the longitudinal forward direction), provided none of the conditions in 4.22.48 (b) to (e) are met and provided that Barrier Safety Nets are employed.</p> | <p>Barrier Safety Nets provide protection to occupants forward of the cargo by withstanding the forces, within a defined expansion zone, resulting from a 9g forward acceleration by the cargo.</p> <p><i>A dynamic analysis of the restraint scheme iaw 4.22.16(b) may be considered as a method of enhancing the level of safety offered. However, dynamic analyses of cargo restraint schemes are not mandatory.</i></p> |