

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

TITLE OF PROPOSAL: Def Stan 00-970 Part 5 – Large Aircraft. Issue 1

Stage of Amendment:	Issue 1
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Def Stan 00-970 NPA Serial No:	2014/001
Unsatisfactory Report Serial No:	N/A
MAA Originator:	Mr/ C2 Brian Jones MAA-Cert-ADS1b

Affected Part: (including paragraphs)	New Def Stan 00-970 Part 5
Cross-reference to other relevant amendment proposals or documents:	N/A

ADS Point of Contact details	
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Part 1 (for issue to User Community)

<p>INTRODUCTION (Not more than 250 words)</p> <p><i>Defence Standard 00-970 needs to provide clarity on the requirements for certification of large aircraft and to develop in accordance with the strategy of recognising where civil requirements may be deemed appropriate for certification of military aircraft. This NPA advises the regulated community of the proposed publication of a Draft Def Stan 00-970 Part 5 (Large Type Aeroplanes) which extensively references EASA CS25 plus appropriate military requirements derived and/or cross-referenced to other parts of Def Stan 00-970 or other appropriate recognised Standards. On closure of the NPA and pending resolution of any comments, the intent will be to submit the document for NAA as the authoritative Def Stan 00-970 Part 5.</i></p> <p><i>There has been an intent to develop a Part 5 of Def Stan 00-970 since the early 1990s when all fixed wing requirements were incorporated back into Part 1, removing many of the previous</i></p>
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references to large and transport type aircraft.

The MAA Certification Division developed this new draft Part 5, using the current CS25 and DS 970 requirements, by undertaking a detailed SME or SQEP agencies (eg RAF CAM) review of the need for military deviations, additions or amendments to existing CS25 requirements; using Def Stan 00-970 Pts 1, 7, 11 and 13 as a baseline.

SUMMARY OF PROPOSED AMENDMENT

New Def Stan 00-970 Part 5 Issue 1

Change: *New Standard issued*

Impact Assessment:

Objective:

This standard will provide design certification requirements for the design of new large aircraft and Major Changes to existing air systems, in the Large Aircraft category, for operation in the UK military environment. It will also enable designs to be compliant with European civil legislation, negating the current need for special conditions and waivers for operations in the European civil environment.

Risk Assessment: The impact of not incorporating the recommended changes is the possibility of misinterpretation of the requirement in that all fixed wing aircraft design requirements will remain in the Def Stan 00-970 Part 1. With the Standard being cited by regulation as the baseline Type Certification Basis for aircraft to be certified for operation in the UK military environment iaw RA 1500. The increasing complexity and diversity of aircraft specifications makes it necessary to raise separate requirements for the different types of aircraft to be operated i.e. combat aircraft, medium sized aircraft and large transport type aircraft.

Courses of Action.

1. **Do nothing.** *Undesirable for the reasons stated above.*
2. **Partial Amendment** *N/A.*
3. **Full Amendment.** *Publish New Issue*

Preferred Course of Action. New Issue

Costs and Benefits:

1. **Do nothing** *Significant Cost as new designs or significant modification will require review of 970 pt 1 and EASA requirements and may need special conditions and waivers*
2. **Partial Amendment** *N/A*
3. **Full Amendment** *Significant benefit as Pt5 will provide clear requirements for large aircraft and new designs will be compliant with EASA Specifications allowing EU operations without special conditions and waivers.*

Consultation period ends: 17/10/2014

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

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.*

Initial Issue of Def Stan 00-970 Part 5 – Large Aircraft

This NPA advises the regulated community of the proposed publication of a Draft Def Stan 00-970 Part 5 (Large Type Aeroplanes) which extensively references EASA CS25 plus appropriate military requirements derived and/or cross-referenced to other parts of Def Stan 00-970 or other appropriate recognised Standards

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.*

Interim recommendation to provide the Draft issue one to DStan for display on the DStan web site for a consultation period of three months following which comments will be reviewed and the draft standard amended accordingly before release of issue one..

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.*

Approval is sought for release of Issue 1 of DStan 00-970 Part 5 to DStan.

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: Sqn Ldr/C1.

Approved by:



MAA/Def Stan 00-970 NPA2014/001

MAA DStan 00-979 NPA Form
Revised Jan 14

Signature:	
Name:	M. N. Deaney
Rank/Grade:	Capt. RN
Post:	Dep Head Certification
Date signed:	28 Jan 2015
Release date .	30/01/2015

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

Document Part:	<i>Part 5</i>	Sub-Part:	<i>n/a</i>
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Unsatisfactory Report Reference:	<i>n/a</i>	NPA Reference:	2014/001
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Originator:	<i>B Jones</i>	Date:	29 Jan 2015
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Amendment to be Incorporated on	30 Jan 2015
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APPROVAL

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

INCORPORATION

The amendment will be incorporated in issue 15



Signed (IAW with part 2).

for DG MAA

20150129 DefStan 00-970 Pt 5 NPA 2014/001 Feedback Response



Serial No.	Pt5 Ref	Comment	Recommendation	MAA Comments	MAA Decision
NPA 2014/001/001	for MAA Comments	Under Requirement, the word 'section' should be capitalised.	Capitalise the word 'Section'.	Admin change	Accepted
NPA 2014/001/002	Sec 2 UK 20a	Under Compliance reference is made to the 'Project Team Leader' and later throughout the whole standard. Should this not refer to the Type Airworthiness Authority (TAA) instead as these are engineering decisions, the PTL may not necessarily be an engineer.	Replace 'Project Team Leader' throughout the standard with 'Type Airworthiness Authority'.	PTL is correct - The PTL is the contracting authority.	Not Accepted
NPA 2014/001/003	Sec 2 UK 20b	Under Guidance the title of Leaflet 50 is wrong	Replace with "Estimates..." with "Estimation..."	Admin change	Accepted
NPA 2014/001/004	Sec 2 UK 20b	Under Guidance at foot of page, double quotation marks missing from beginning of Leaflet 52 title.	Insert " before the words The damaged...	Admin change	Accepted
NPA 2014/001/005	Sec 2 UK 20b	Under Guidance an incorrect Section is quoted.	'Part 1, Section 2, Fig 2' should read 'Part 1, Section 4, Fig 2'.	Admin change	Accepted
NPA 2014/001/006	UK References	Inconsistency in UK clause format in Requirement column. Up to page 12 there is a space between 'UK' and the number. After page 12 there is either a full stop between 'UK' and the number or 'UK' immediately precedes the number (see UK301a). Some CS 25 clauses have the full stop missing too.	All 'UK' and 'CS 25' clauses to have a full stop after 'UK' to maintain consistency with the CS 25 clauses, i.e. 'UK.20b' or 'CS 25.301'.	Admin change	Accepted
NPA 2014/001/007	Sec 2 UK 233a	In sub para (e) there is an incomplete reference to another sub section.	Expand to give the full reference 'Part 1 Section 4 Sub section 4.13'.	Admin change	Not Accepted
NPA 2014/001/008	Sec 2 UK 301a	Reference is twice made to Part 1 Section 3 Clause 3.1. Is this not a sub section covering a number of clauses? This inconsistency is seen throughout the standard. A clause is an individual requirement such as 'clause 3.1.17' and has the extra digit grouping.	All references to such clauses should be changed to read 'Sub section' throughout the standard	Not accepted	Not Accepted
NPA 2014/001/009	CS25 397	Under Guidance the Def Stan clauses referred to do not exist.	Determine the correct clauses to refer to	Clauses referred to are correct. Rewrite the GM listed in Pt 5 against CS25.397 to read "Dependant on the role of the aircraft the requirements of Def Stan 00-970 Pt 1 Section 3 Clauses 3.9.1 to 3.9.10 should be considered for applicability."	Partial Accept
NPA 2014/001/010	CS25 399	Under Guidance the Def Stan clauses referred to do not exist.	Determine the correct clauses to refer to	Admin change	Accepted
NPA 2014/001/011	UK562a	Under Requirement the letter 't' appears twice randomly after the word 'Section'.	Delete the two instances of the letter 't'.	Admin change	Accepted
NPA 2014/001/012	Sec 2 UK 571b	Under Compliance reference is made to the 'Project Authority'. Who is this?	Change to refer to the 'Project Team Lead'.	Admin change	Accepted
NPA 2014/001/013	Sec 2 UK 581a	Under Requirement reference is made to '...Clauses 4.27 to 40...', i.e. a mixture of sub sections and clauses.	Change to refer to '...Sub section 4.27...' deleting '...to 40...' as this is not applicable.	Admin change	Accepted
NPA 2014/001/014	Sec 2 UK 609a	Under Compliance Sub section 5.1 referred to covers more than engine air intakes. Refer to the specific clauses appropriate to air intakes.	Change reference to 'See Part 1, Section 5, Clauses 5.1.40 to 5.1.50'.	The original reference to 7.2.8 seems appropriate. As the clause 25.609 and UK609 refer to protection of structure. Suggest separate UK requirements may be needed for Engine and armament systems. Part 11 has Sand/Dust requirements for engines, and weapons should be covered by Part 13 or special conditions for references, therefore no further change to this requirement in Part 5 required.	Not Accepted
NPA 2014/001/015	Sec 2 UK 723a	Under Requirement the reference to Design vertical Velocity in Leaflet 46 is at para 3.1 so include this in the reference. Also capitalise the initial letter of the word 'vertical'.	Change reference to '...Leaflet 46 paragraph 3.1...' and capitalise 'Vertical'.	Admin change	Accepted
NPA 2014/001/016	Sec 2 UK 771a	Under Guidance reference is made to 'Air Staff'. Is this the correct terminology?	Confirm the correct terminology and/or organization to be consulted.	Should be PTL as he/she is the contractual signatory	Accepted
NPA 2014/001/017	Sec 2 UK 771a	Under Compliance an incorrect reference is made by omitting the clause sub section.	The reference should read 'Part 1, Section 4, Clauses 4.15.13 to 4.15.16'.	Admin change	Accepted
NPA 2014/001/018	Sec 2 UK 775b	Under Requirement the clause referred to has nothing to do with the subject. Clause 4.13.8 refers to cable trampling.	Determine the correct reference	Admin change	Accepted
NPA 2014/001/019	Sec 2 UK 777d	Under Compliance reference is made to 'FAP101A-0001-1'. It is not a microfiche publication.	The correct reference is 'AP101A-0001-1' and is a .pdf publication available on Tech Docs On-Line (TDOL).	Agreed	Accepted
NPA 2014/001/020	Sec 2 UK 853a	Under Guidance reference is made to 'STANAG 3800 (cancelled)'.	The STANAG is cancelled so reference to it should be removed.	Agreed	Accepted
NPA 2014/001/021	Sec 2 UK 853a	Under Requirement '7.4' is not a 'paragraph'.	Change the reference to '...Sub section 7.4...'.	Admin change	Accepted
NPA 2014/001/022	Sec 2 UK 899a	Under Guidance reference is made to 'STANAG 4327'. This is not listed on the DSTAN database.	Confirm status of 'STANAG 4327'	Agreed	Accepted
NPA 2014/001/023	Sec 2 UK 937a	Under Requirement the word 'Clause' has been omitted from the reference.	Insert the word 'Clause' between 'Section 5' and '5.1.63'.	Admin change	Accepted
NPA 2014/001/024	Sec 2 UK 951a	Under Compliance a partial reference is given.	The correct reference should be '...Part 13, Sub section 3.5...'.	Admin change	Accepted
NPA 2014/001/025	Sec 2 UK 963a	Under Requirement clauses 5.2.36 to 5.2.54 are noted. Clauses 5.2.55 and 5.2.56 seem equally as applicable.	Include Clauses 5.2.55 and 5.2.56 and amend reference to read "...Clauses 5.2.36 to 5.2.56..."	Admin change	Accepted
NPA 2014/001/026	Sec 2 UK 1315a	Under Requirement the references are abbreviated and lack of punctuation makes Clause '51.90' appear to be incorrect.	Amend to read '...of Part 1, Section 5, Clause 5.1.90 and Part 1, Section 6 Leaflet 20 paragraph 3.6 shall...'.	Admin change	Accepted

NPA 2014/001/027	Sec 2 UK 1322a	Under Requirement the full reference to the quoted Sub section should be given.	Full reference should read '...see Part 1, Section 4, Sub section 4.19...'	Admin change	Accepted
NPA 2014/001/028	Sec 2 UK 1381b	Muddled reference under Compliance.	Correct reference should read 'Refer to Part 13, Section 1, Clause 6.11.1'.	Admin change	Accepted
NPA 2014/001/029	Sec 2 UK 1383a	Under Guidance the reference should be reformatted for consistency.	Reformat the reference to read 'Part 13, Section 1, Clause 1.1.1.1'.	Admin change	Accepted
NPA 2014/001/030	Sec 2 UK 1383b	Under Guidance the reference should be reformatted for consistency.	Reformat the reference to read 'Part 13, Section 1, Clauses 1.1.1.3 to 1.1.1.6'.	Admin change	Accepted
NPA 2014/001/031	Sec 2 UK 1441a	Under Compliance part of the reference is missing.	Amend reference to read 'Part 1, Section 3, Clauses 3.2.7 to 3.2.15'.	Admin change	Accepted
NPA 2014/001/032	Sec 2 UK 1445c	Under Guidance reference is made to Def Stan 08-41. This is Obsolescent.	Include the word '(Obsolescent)' after the Def Stan reference.	Admin change	Accepted
NPA 2014/001/033	Sec 2 UK 1445i	Under Compliance there are multiple references to 'Project Team'. I don't believe the Project Team has the specialist knowledge to do this.	Identify the correct organization to fulfil this function.	Project Team is correct, however we should if possible identify any MOD specialist areas who may be able to advise, e.g. RAFCAM in this area. Add a section in Guidance, to state that RAFCAM may provide guidance and advice on suitable...	Partial Accept
NPA 2014/001/034	Sec 2 UK 1447a	Under Requirement reference is made to the 'Project Team'. This is not a Project Team function.	Identify the correct organization to fulfil this function.	Agree on change to aircraft specification	Accepted
NPA 2014/001/035	Sec 2 UK 1447c	Under Guidance there are multiple references to 'Project Team Leader'. I don't believe the Project Team Leader has the specialist knowledge to do this.	Identify the correct organization to fulfil this function.	Agree, may consider adding reference to specialist area for advice/guidance in the Guidance field	Partial Accept
NPA 2014/001/036	Sec 2 UK 1447d	Under Requirement reference is made to the 'Project Team Leader'. This is not a Project Team Leader function.	Identify the correct organization to fulfil this function.	Agree, but see reference above to specialist areas giving advice in the GM.	Partial Accept
NPA 2014/001/037	Sec 2 UK 1447e	Under Requirement and Compliance reference is made to the 'Project Team Leader'. This is not a Project Team Leader function.	Identify the correct organization to fulfil this function.	Agree, but see reference above to specialist areas giving advice in the GM.	Partial Accept
NPA 2014/001/038	Sec 2 UK 1447f	Under Requirement reference is made to the 'Project Team Leader'. This is not a Project Team Leader function	Identify the correct organization to fulfil this function.	TW (ADS1) 30/10/2014 Agree, but see reference above to specialist areas giving advice in the GM.	Partial Accept
NPA 2014/001/039	Sec 2 UK 1447j	Under Guidance there is an incomplete reference.	Reference should read 'Part 13, Section 2, Leaflet 3'.	Admin change	Accepted
NPA 2014/001/040	Sec 2 UK 1447g	Under Guidance there is an incomplete reference.	Reference should read 'Part 13, Section 2, Leaflet 3 Para 3.9'.	Admin change	Accepted
NPA 2014/001/041	Sec 2 UK 1447j	Under Guidance there is an incomplete reference.	Reference should read 'Part 13, Section 2, Leaflet 3'.	Admin change	Accepted
NPA 2014/001/042	Sec 2 UK 1527a	Under Guidance at sub para (c) an incorrect Leaflet is referred to.	Amend to read '... Leaflet 2...'	Agreed	Accepted
NPA 2014/001/043	Sec 2 UK 1527a	Under Guidance at sub para (d) an incorrect Leaflet is referred to.	Amend to read '... Leaflet 3...'	Agreed	Accepted
NPA 2014/001/044	Sec 2 UK 1527a	Under Guidance at sub para (e) the Leaflet referred to appears to be incorrect.	Identify the correct Leaflet to refer to.	Agreed	Accepted
NPA 2014/001/045	Sec 2 UK 1555a	Under Guidance the clauses referred to are incorrect.	Correct clauses are '...Clauses 4.15.22 to 4.15.25'.	Admin change	Accepted
NPA 2014/001/046	Sec 2 UK 3.1.1	Under Compliance the reference is incorrect.	Amend reference to read '...Part 1, Section 1, Clause 1.1.28'.	Admin change	Accepted
NPA 2014/001/047	Sec 2 UK 20a	There are references to unpaved runways but not "Natural Surface" is this an oversight? Manual of Aerodrome Design & Safeguarding used as reference. Quote - 20a Unpaved Runways Take-off and Landing The applicant shall demonstrate safe take-offs and landings for a defined set of unpaved runway types.		Reworded to remove reference to unpaved runways (CS-25 excludes only 'unprepared' runways but fails to provide an EASA definition for this term). As a result, scope amended to include 'all surfaces not within the scope of CS-25'. Minor changes to Guidance. Agree 'natural surface' is a subset but no need to specifically mention. Guidance refers out to 00-970 classification of runway types. Main AMC and Guidance moved to Subpart C (Structures) with similar requirements added to relevant parts Subpart B and Subpart D.	Partial Accept
NPA 2014/001/048	Sec 2 UK 735a	I understand the intent of the following, but most large aircraft will be unable to comply as I they are not fitted with flying control locks. Quote -The parking brake shall be capable of meeting the requirements of CS 25.735 for at least 24 hours when all engines are stopped, when flying control locks have been applied, and no power is supplied from an outside source.		Not sure why this is an airworthiness requirement for us, also what has control locks got to do with it? Recommend Delete See NPA/2014/001/144	Accepted
NPA 2014/001/049	Sec 2 UK 771b	Should the whole crew not be considered in the following? Quote - UK 771b Pilot Compartment Armour Protection		As we refer to crew stations elsewhere within UK 771 (UK771a refers to colour requirements at crew stations) the title of UK771b should be changed to a similar description for consistency. i.e. Pilot compartment and crew station armour protection. Reference to clause is incorrect: should be 4.15.13 to 4.15.16. Should also change the words in the requirement to: 'Where protective armour for the crew is required as part of the aeroplane specification it shall meet the requirements of Part 1 Section 4 Clauses 4.15.13 to 4.15.16'.	Accepted
NPA 2014/001/050	Sec 2 UK 785a	Do not understand the following, however I believe personnel should be restrained adequately to prevent injury or accidental exit from aircraft when near an open door. Quote -UK.785a Open Doors in Flight, Crew Restraint For crew members whose duties require them to stand near an open door in flight, a body harness providing vertical head-up suspension from the parachute and adequate restraint for both pelvis and thorax, when seated, shall be provided.		Close this and refer to Comment NPA 2014/001/164	Noted

NPA 2014/001/051	Sec 2 UK 3.1.1	Normally you must enter the flight deck on large aircraft to jettison equipment or stores. The (only immediate) things that spring to mind are a refuelling hose (tanker aircraft) and Stores carried in any Counter Measure Dispensing Systems (CMDS). Quote -UK.3.1.1 Jettisoning of Stores (1) It shall be possible to jettison safely within an appropriate envelope, all external stores that could be critical for operational or flight safety reasons. (2) It shall be possible to jettison safely all stores carried internally; this may require the bomb doors to be opened. When the aeroplane is on the ground, it shall be possible to release mechanically any store and/or its jettisonable carrier without entering the cockpit.		Requirement is appropriate although Ref to Pt1 sect 1.1.33 in the compliance column of UK3,1,1 appears incorrect. should read clause 1.1.28-30	Not Accepted
NPA 2014/001/052	Sec 2 UK 3.1.23	UK 3.1.23 Cargo Tie-down Fittings Must comply with the requirements of CS 25.562 "Perhaps should read CS 25.561" Cargo tie-down fittings for floor attachments shall be in accordance with the requirements of Def Stan 00-3 "There aren't any details within Def Stan 00-3 Issue 4"	"Perhaps should read CS 25.561"	Agree that the correct ref should be CS25.561 and also Pt 1 Sect 4.22.49-50. DefStan 00-3 clause 10.6 refers and is appropriate.	Partial Accept
NPA 2014/001/053	Sec 2.8 UK 1707a	References AP101A-0005-1 and AP101A-0006-1 do not detail specific clearance distances.	Remove references. Retain AMC25.1707 for compliance. Add AS50881 as a reference for guidance.	Clearances are adequately covered in CS1707. Growth potential should be defined in conjunction with the appropriate PTL. Change UK1707a to read 'Growth potential shall be agreed with the relevant Project Team Leader'.	Accepted
NPA 2014/001/054	Sec 2 UK Various	Multiple Comments (on file) relating to current in service aeroplane.		Multiple comments from reviewer all referring to changes needed to their current platform to comply rather than application to a new design. Not really applicable but Content noted.	Noted
NPA 2014/001/055	Sec 2 UK 303a and UK 305a	The Design Proof Load requirement detailed in these two sections is the same.	Rationalisation of repeated requirement	Agree that the requirement is duplicated within UK305a. However the best COA will be to take the requirement from UK305a, place in UK303a and then delete UK305a in toto	Partial Accept
NPA 2014/001/056	Sec 2 UK 571a	If this is to be used as a certification standard, where the requirement refers to demonstrating adequate fatigue performance throughout the operational life of the aircraft may need clarification. The operational life may well vary through the life of the aircraft and the designer has no control over this. Suggest this should be clarified to reflect the operational life in the aircraft design specification or similar.	Suggest that the term operational life should be clarified – such as defined in the aircraft specification, or similar	Agree that the inclusion of additional wording.	Accepted
NPA 2014/001/057	Sec 2 UK 571a	AMC identifies that a fatigue evaluation MUST be conducted iaw DS00-970 or CS25 – is this not a requirement then?	Suggest either alignment of verb AMC or transfer to a requirement	Requirement reviewed and in line with NPA2014/001/58 "Must" is to be replaced with "Should". recommended:	Partial Accept
NPA 2014/001/058	Sec 2 UK 571a	I would suggest that the sensitivity to elevated spectra work in the GM of DS00-970 3.2.18 (and Leaflet 37) is important for a civil aircraft used in a military environment. We need to know those features that will be vulnerable to an increased severity of usage – common in the military environment. I do not think this is included in the CC25	Include the AMC/GM from DS00-970 3.2.18 in this standard	Reword compliance to "A fatigue evaluation should be carried out in accordance with the requirements of DS00-970 Part 1 section 3.2" This then makes it clearer that the Def Stan requirements need to be considered and if necessary formally rejected as a certification requirement.	Partial Accept
NPA 2014/001/059	Sec 2 UK 571a	The guidance states – "The approach to be used will be defined by the aircraft military configuration, role and usage." I do not think this is a very clear piece of guidance. Firstly, I am unsure as to how the ac mil configuration, role or usage can DEFINE the fatigue approach. I think that this section is suggesting that if a large aircraft is used in a close to a civil role would be more likely to use CS25 whereas a more military large aircraft may be more likely to use DS00-970 but this may not be a correct interpretation of the GM. Furthermore, I would suggest it is unlikely that a large aircraft will have a DS00-970 basis but that the military deltas to a civil basis might be to DS00-970.	Suggest rewording to make the meaning clearer. Maybe better to refer to the aircraft specification.	Rewrite guidance material. "The fatigue evaluation approach will be defined by the aircraft military configuration, role and usage as determined by the aircraft specification. The methodology used will be articulated by the Design Organisation for acceptance by the PTL"	Partial Accept
NPA 2014/001/060	Sec 2 UK 571a	Also the GM contains a MUST that is not referred to a higher instruction.	Ref to higher instruction (if applicable) or alignment of verb with GM or move to requirement.	Amended wording suggested above at NPA2014/001/056 - 59 addresses this issue.	Noted
NPA 2014/001/061	Sec 2 UK 571b	The requirement section does not identify that the subject is teardown of FATIGUE TEST ARTICLES. The AMC does but not the requirement. As written it is confusing.	Change title and paragraph to refer to teardown inspection of fatigue test articles. Suggest the first sentence of existing DS00-970 3.2.16 may be appropriate.	Change wording in first sentence of the requirement to read "Following completion of fatigue testing to support analysis to demonstrate a satisfactory residual strength" Retitle UK571b to 'Tear Down Inspection to Support Residual Strength Analysis'	Accepted
NPA 2014/001/062	Sec 2 UK 571b	No reference is made to Leaflet 37.	Include ref to Leaflet 37 in GM.	a reference to Dstan 00970 Pt1 sect 3 lft 37 needs to be added to the guidance column.	Accepted
NPA 2014/001/063	Sec 2 UK 571b	AMC refers to retaining the fatigue test article for service life which will normally follow residual strength testing. There is no mention of RST or to consider RST in the requirements or elsewhere in the AMC.	Suggest that RST considerations should be included and consideration of test / analysis approach should be undertaken.	This is now answered at NPA2014/001/61.	Noted
NPA 2014/001/064	Sec 2 UK 571b	Last sentence of REQ states that life MUST be limited to 90% pending teardown. This does not refer to a higher reg or requirement. It should be noted that this figure was put in to ensure that teardowns were done, rather than from any sound statistical basis.	Suggest that SHALL be limited to 90% of the life is more appropriate.	Agree with NPA recommendation. Text should be changed to "...shall be limited to 90%....."	Accepted
NPA 2014/001/065	Sec 2 UK 571c	Phrase used is "In order to attract the 'monitored' factors in fatigue design". These monitored factors are not included or referenced in this section.	Either include a reference for monitored factors or include the factors in the requirement (also ref to Leaflet 38)	Agree. Insert reference to Leaflet 38 as per UK. 571d	Accepted
NPA 2014/001/066	Sec 2 UK 571c	If DS00-970 is a certification standard how can the effectiveness of the fleet-wide monitoring system be demonstrated in service at the point of certification?	Suggest that a methodology for the demonstration of the effectiveness of the monitor shall be developed is may be more appropriate for a certification standard.	Agree: Re-word final sentence to "Methodology for demonstration of effectiveness of the monitor shall be developed."	Accepted

NPA 2014/001/067	Sec 2 UK 571c	AMC refers to 'advanced' direct strain measuring technique. Not sure what is meant by advanced.	Suggest remove the work 'advanced' as it could cause confusion as to what you require. I think this a legacy from very old measurement systems such as the Vickers-Lambie Strain recorder which would not be fit for this	Agree with NPA comment. Remove the word advanced.	Accepted
NPA 2014/001/068	Sec 2 UK 571c	Requirement identifies that the monitoring system 'covers' all critical features. There is no guidance of what is meant by that. Also CS25 uses PSEs rather than critical feature.	Suggest refer to leaflet 38 and consider whether this leaflet is fit for the purpose you intend. Maybe consider what terminology should be used PSE/critical feature etc.	Agree. Insert reference to Leaflet 38 as per UK. 571d but also include that 'It should be noted that CS25.571 also refers to critical features as principal structural elements or detailed design points.'	Accepted
NPA 2014/001/069	Sec 2 UK 571d	As written the requirement identifies that instrumentation shall be fitted for the PURPOSE of estimating fatigue damage accumulation – this is written around the fatigue meter and I do not think this is what you mean.	Suggest the important point is that there should be an APPROPRIATE Individual Aircraft Tracking (IAT) system. For some aircraft fit may be sufficient to count GAG cycles whereas others may require far more.	Delete requirement covered within 571c with reference to Lfit 38 within GM.	Partial Accept
NPA 2014/001/070	Sec 2 UK 571d	Not sure "in-service loads assessment" is the correct terminology. I understand that civil regs require loads validation (flight loads survey etc) and this is an activity undertaken during the V&V phase of aircraft development. I am not sure whether this is referring to loads survey or OLM. I think it is the latter and hence surely this is covered by UK571c.	Suggest that the requirement is Service Monitoring / OLM etc and how it is done should be 'as appropriate' rather than defined in the Def Stan. Suggest this is legacy regulation that may no longer be applicable in its current	Agree, covered under 571c. delete	Accepted
NPA 2014/001/071	Sec 2 UK 20g	UK20g and UK473a are closely related but are not cross referenced in either section.	Cross reference	Reference to UK 473 load cases added to UK 721 series.	Accepted
NPA 2014/001/072	Sec 1 1.01	States certification in all classes of controlled airspace - Class G is not defined as controlled so is this excluded?	Define 'controlled' airspace	Addressed in Section 1 change	Accepted
NPA 2014/001/073	Sec 1 1.03	Numbering error; two para 1.03	amend para numbering	Admin change	Accepted
NPA 2014/001/074	Sec 1 1.03	unclear whether compliance to one of the standards equates to compliance to both or whether compliance has to be demonstrated, where applicable, to both standards.	Clarify phrasing & primacy: with both (either) UK military certification standards and (or) European Aviation Safety Agency	Para 1.0.3 updated to improve clarity and explain all requirements to be considered as part of TCB under MRP modified wording to provide clarity.	Accepted
NPA 2014/001/075	Sec 1 1.4.2	It may also be used for the certification of significant or major modifications and specialist conversions, for example, tankers.	Where does significant come from? Civil Change product rule? Remove significant and major	Agreed, significant and major removed.	Accepted
NPA 2014/001/076	Sec 1 1.4.3	There may be cases when there is no SC but that IMM or AMC is introduced through the MCRI process	Reword to direct discussion revolving around additional requirements to be captured in the MCRI process.	Updated : Paragraph re written	Accepted
NPA 2014/001/077	Sec 1 1.4.4	Acceptance process is normally related to individual aircraft acceptance, not to Type. As such it is not clear what the roles have to do with a certification procedure but should be reviewed against any impact on the agreed certification requirements of the TCB.	Reword to refer to certification requirements, not procedures	Agreed. Complete para is not necessary (was in previous version of DS970) and does not contribute to use or understanding of document, deleted	Accepted
NPA 2014/001/078	Sec 1 1.4.5	Note that where the CS 25 makes reference to 'the Agency', for the purposes of this standard, this reference should be read as meaning both EASA and the MAA.	This could cause confusion. The MAA should not be referred to as an Agency?	Modified to read ; Note that where CS 25 makes reference to 'the Agency', this should be considered to mean the certifying authority.1.4.5 deleted, Sentence moved to 1.4.4	Accepted
NPA 2014/001/079	Sec 1 1.4.5	Why use the term 'primarily focussed' and why only note AMC, what about GM	Reword: is based is primarily focussed on airworthiness (remove is based and primarily). Either and reference to GM or remove AMC?	Primarily removed. The wording related to CS25 doesn't include 'GM' because CS25 doesn't explicitly have GM sections, Guidance material is part of Requirements and AMC	Partial Accept
NPA 2014/001/080	Sec 1 1.4.6.2b	The identification of risk to the DH is RtL not non-compliance against certification	Clarify what is required - remove reference to DH and refer to RAs?	DS970 amended to remove reference to DH and utilise wording similar to RA1500 (airworthiness mitigations considered necessary to provide equivalent level of safety)	Partial Accept
NPA 2014/001/081	Sec 1 1.4.6.6	This para appears confused with the role of the MOD PTL, TAA and Capability D.	identify what the para is aiming to achieve and reword	Agreed Para serves no purpose, deleted	Accepted
NPA 2014/001/082	Sec 2 UK 1a	This standard is applicable to Class III aeroplanes (Large, heavy, low to medium manoeuvrability aeroplanes) as defined in Part 1 section 2 Leaflet 1. Boundary between Class II and III is not clear.	Should this also be defined as a mass limit similar to CS23 / CS25	There has never been a clear designation of limits in Part 1, therefore issue is Pt 1, not Pt 5, production of Part 3 will clarify this, no change to Pt 5. see also NPA2014/001/083	Not Accepted
NPA 2014/001/083	Sec 2 UK 1a	Pt5 is only applicable to Class III aircraft - What about Class II Excluding Class II implies aircraft normally certified against CS-25 such as UK MPA options, P-8/C-295/Q0400 are to be certified according to Pt 1, which is not appropriate. Leaflet 1 is out-of-date, it clearly links applicability to certification standards by structural-related operating characteristics.	Propose that this requirement is deleted	Most of the types listed in the comment do come under this definition. Point to note: Nimrod MR2 and MRA4 were both Class 3/Group 3 aircraft. We could define manoeuvre/g limits, but that would be inappropriate. Also production of Pt 3 will 'fill the gap'. There is no reason why all the types listed could not be certified under CS25/Part. See also NPA 2014/001/082 Leaflet 1 is under review.	Noted
NPA 2014/001/084	Sec 2 UK 20a UK 20g	Full stop missing between UK and 20a - 20g	Insert full stops	Admin change	Accepted
NPA 2014/001/085	Sec 2 UK20e - UK 20g	Guidance refers to UK20 however, there is no UK20	Change to read UK 20 clauses.	Admin change	Accepted

NPA 2014/001/086	Sec 2 UK20a	Not applicable to scope of CS-25 Subpart B. CS 25 refers to "unprepared runways" as being out of scope in subpart B. Transport Canada define an unprepared runway as "Any naturally occurring surface used as a runway that has not been altered by man". Therefore CS25 Subpart B is clearly applicable for many forms of unpaved runways. Regardless of the validity of these new requirements, the terminology is confused, mixing "unpaved" with "unprepared". UK req 20 should just be a placeholder to a completely new requirement number, as req 20 of CS25 relates to Scope of Subpart B only.	Notwithstanding the confusion between unprepared/unpaved definition, Req 20 should read "Requirements for operations on unprepared runway surfaces are considered under req 3.xx in Section 3". Applicable req's to unprepared runways should be moved to Section 3.	See response to NPA 2014/001/047.	Noted
NPA 2014/001/087	Sec 2 UK20a	There are references to unpaved runways but not "Natural Surface" is this an oversight?		See response to NPA 2014/001/047.	Noted
NPA 2014/001/088	Sec 2 UK20b	Not applicable to scope of CS-25 Subpart B. Heavy cross-referencing to Pt1 Sect4. More appropriate as AMC material.	Delete	See response to NPA 2014/001/047. Transferred to AMC of UK 473b.	Noted
NPA 2014/001/089	Sec 2 UK 20c	Definition of airplane configuration; is it not the configuration of the airplane that is required not a definition?	Amend text: the configuration of the aeroplane shall be agreed with the PTL (TAA?)	See response to NPA 2014/001/047. Change accepted, content transferred to AMC of UK 473b.	Noted
NPA 2014/001/090	Sec 2 UK20c	Not applicable to scope of CS-25 Subpart B. This is a contractual requirement only.	Is not a certification requirement.	See response to NPA 2014/001/047. Transferred to AMC of UK 473b.	Noted
NPA 2014/001/091	Sec 2 UK20d	Not applicable to scope of CS-25 Subpart B. Surely this is required by the overall AFM requirement 25.1581? If this special procedure requirement is kept, then all military capabilities will require references to remind the need for special procedures, e.g. aerial delivery, AAR, low level flight, etc.	Delete subreq, or move subreq to 1581 a2 if an explicit ref is really required. Should this be in a different section (not scope)	See response to NPA 2014/001/047. Agreed, delete.	Accepted
NPA 2014/001/092	Sec 2 UK20e	Not applicable to scope of CS-25 Subpart B. The only requirement here is to quantify Rtl increase associated with ROS/MOS. Rtl requirements must, however, be articulated in the Equipment Subpart, under 1309(b). Similar to 20a, this would be better referenced as UK MCRI O-04 for consistency, and/or referenced under UK.1309(b)	Re-word to focus on actual requirement being quantitative assessment of Rtl, and move to UK.1309(b) or Section 3. Remove NOS, ROS and MOS is covered in RA 1300 series.	See response to NPA 2014/001/047. This is not within the scope of CS25.1309. Have moved first para to replace UK 1553a which is now a general clause for NOS/ROS/MOS not just unpaved runways. Put it in GM. Have moved second para to AMC of UK 1553a as Rtl quantification is better referenced out to the MRP.	Accepted
NPA 2014/001/093	Sec 2 UK20f	Not applicable to scope of CS-25 Subpart B. Isn't this a little too obvious to be a requirement and wouldn't it be assured through PRA and other common-mode system safety assessment techniques?	Propose that this requirement is deleted	See response to NPA 2014/001/047. Retained, as military aircraft have various stores and configurations and a certification requirement is needed. The assessment would not be probabilistic. Moved to UK 721d.	Partial Accept
NPA 2014/001/094	Sec 2 UK20f	Ground Clearance - This clause and relative sub-paragraphs contain references to arrestor hooks, which seems to be inappropriate for this class/category of aircraft.		See response to NPA 2014/001/047. Retained, as some aircraft within the weight category of CS-25 have arrestor hooks. The requirement states "if fitted". Moved to UK 721d.	Partial Accept
NPA 2014/001/095	Sec 2 UK20g	This appears to be a design requirement. Not applicable to scope of CS-25 Subpart B. Safety requirement would be covered by 1309. However operational efficiency could be considered a valid military certification requirement. Text needs reducing to get to the actual requirement difference (consideration of operational efficiency, i.e., availability of a/c following trampling), rather than a repeat of the full Pt 1 requirement.	Reduce text to make difference to CS-25 clear in terms of military efficiency. Transfer to Subpart D.	See response to NPA 2014/001/047. The requirement refers to safety and this is considered a certification requirement. Moved to Subpart D UK 721e (replacing previous UK 721d, similar reqmt).	Accepted
NPA 2014/001/096	Sec 2 UK143a	Firstly, the requirements are not made explicit, they are cross-referenced to Pt 1. first Pt 1 cross-referenced requirements relate to aerodynamic and performance and handling effects from movable surfaces such as bomb bay doors. The second cross-reference also mandated wind tunnel testing which is no longer necessary with modern-day CFD modelling and recommend this moved to AMC. I think this requirement would be more applicable to 143(b), as it is quite similar to 25.143(b)(3).	Re-word to make requirement explicit rather than cross-referenced. Shouldn't this be an AMC? Re-number to UK.143b.	UK143(a) refers to two requirements 2.17.33 and 3.4.15. Reference to requirement 2.17.33 needs to be replaced with text copied from DS00-970. The details of 3.4.15 form the reqs of UK459(a) and are better placed under that requirement than here. Recommend delete the reference to 3.4.15 from UK143(a). Additional requirement UK143b needs to be added to consider external stores. Suggested wording is:- "The requirements of CS25.143 shall apply for such symmetric and asymmetric combinations of internal and external stores as are stated in the aeroplane specification. The effects of internal and external stores on the mass and its distribution and on the aerodynamic characteristics of the aeroplane shall be considered for each mission flight phase. When the stores contain expendable loads, the requirements of CS25.143 apply throughout the range of store loadings."	Partial Accept

NPA 2014/001/097	Sec 2 UK 145a	<p>External Stores</p> <p>The requirements of Part 1 Section 2 Clauses 2.6.7, 2.3 and 2.1.26 shall be considered.</p> <p>2.1.26 The requirements of Clauses 2.21 to 2.24 shall apply for such symmetric and asymmetric combinations of internal and external stores as are stated in the aeroplane specification. .</p> <p>2.21 LONGITUDINAL FLYING QUALITIES</p> <p>2.22 LATERAL AND DIRECTIONAL FLYING QUALITIES</p> <p>2.23 REQUIREMENTS FOR STRUCTURAL AND EQUIPMENT EXPOSURE TO NOISE AND VIBRATION</p> <p>2.24 STALLING, POST-STALL GYRATIONS AND SPINS AND MISCELLANEOUS FLYING QUALITIES</p> <p>CS25.143 CS25.145, CS25.147 appear to be acceptable for clean aircraft configurations and could apply to stores configurations particularly in light of para 2.6.7</p>	<p>Replace UK145a with the following: shall also apply to symmetric and asymmetric combinations of internal and external stores as are stated in the aeroplane specification.</p>	<p>2.1.26 internal and external store loads and clause 2.6.7 are appropriate. Therefore the requirement for UK145a should read</p> <p>"If the aeroplane is capable of carrying external stores, the tests shall first be made without the stores fitted to establish the basic stability of the aeroplane, and then repeated with the stores fitted to establish any destabilising effect of the stores. The loading shall include combinations of stores which result in:</p> <p>(a) highest mass, (b) highest pitch inertia, (c) the most probable store loading(s) for Service use if this is/these are not covered by (a) and (b) above. (d) the most aerodynamic destabilising configuration</p> <p>The requirements of CS25.145 shall apply for such symmetric and asymmetric combinations of internal and external stores as are stated in the aeroplane specification. The effects of internal and external stores on the mass and its distribution and on the aerodynamic characteristics of the aeroplane shall be considered for each mission flight phase. When the stores contain expendable loads, the requirements of CS25.145 apply th</p> <p>See also NPA 2014/001/098 and 099</p>	Partial Accept
NPA 2014/001/098	Sec 2 UK 145a	<p>"2.3 When the urgency of the mission justifies operation under conditions in which the NOS requirements could not be met, ROS or MOS will be applied. These standards involve a lower level of safety by reducing margins, allowing (where applicable) for the jettisoning of stores following engine failure, or ignoring the possibility of engine failure. Criteria for these standards will be introduced later." Is this a cert requirement?</p>	<p>Propose delete or move to more appropriate location</p>	<p>The text reference by DAT is not from Pt 1 Sect 2.3 but from lft 1 para 2.3. Therefore reject the NPA as presented due to incorrect reference.</p> <p>See also NPA 2014/001/097 and 099</p>	Not Accepted
NPA 2014/001/099	Sec 2 UK 145a	<p>2.6.7 If the aeroplane is capable of carrying external stores, the tests shall first be made without the stores fitted to establish the basic stability of the aeroplane, and then repeated with the stores fitted to establish any de-stabilising effect of the stores. Is this a cert requirement?</p>	<p>Propose delete or move to more appropriate location</p>	<p>CS25.145 is longitudinal control. Requirements of 2.6.7 are appropriate for UK145(a). Recommend reject NPA Comment. see also NPA/2014/001/097 and 098</p>	Not Accepted
NPA 2014/001/100	Sec 2 UK 145a	<p>The first cross-referenced requirement is not a certification requirement, as it establishes procedural conditions for testing.</p> <p>The second cross-reference brings out full 21 requirements in Pt 1 Clause 2.3. Seems excessive.</p> <p>The third cross-reference is not necessary, it would be better to use the text, as its only there to include consideration of asymmetric store configurations.</p> <p>Recommend consideration of the necessity of mandating flight tests as the sole test of stability assurance. If the external stores are small, relative to the aircraft, other Methods of Compliance, such as Analysis, may be more appropriate.</p>	<p>Review necessity of each individual cross-referenced requirement, eliminate the cross-references and make the requirements explicit.</p>	<p>The reference out to 2.3 is for ground handling characteristics and therefore incorrect when considered in relationship to Long Stab & Cont (CS25.145 / UK145) and needs removing from UK145a. Thought should be given to adding these under CS25.231 or a new requirement UK231a. The refs to 2.1.26 and 2.6.7 have been reviewed under NPA/2014/001/097 are considered appropriate.</p>	Partial Accept
NPA 2014/001/101	Sec 2 UK 145a	<p>Full stop missing between UK and 145a</p>	<p>Insert full stop</p>	<p>Admin Change</p>	Not Accepted
NPA 2014/001/102	Sec 2 UK 147		<p>Insert a new clause UK147a 'shall also apply to symmetric and asymmetric combinations of internal and external stores as are stated in the aeroplane specification.'</p>	<p>Agree. Clause similar to 145a for inclusion of consideration of external stores in the directional and lateral control mode should be added. Suggest:- UK147a</p> <p>"If the aeroplane is capable of carrying external stores, the tests shall first be made without stores fitted to establish the basic handling characteristics of the aeroplane and then repeated with the stores fitted to establish any effects due to the stores. The stores loadings shall include combination of stores which result in:</p> <p>(a) Highest mass. (b) Highest pitch inertia. (c) Highest roll inertia. (d) The most probable store loading(s) for Service use if this is/these are not covered by (a) to (c) above</p> <p>The requirements of CS25.147 shall apply for such symmetric and asymmetric combinations of internal and external stores as are stated in the aeroplane specification. The effects of internal and external stores on the mass and its distribution and on the aerodynamic characteristics of the aeroplane shall be considered for each mission flight phase. When the stores contain expendable loads, the requirements of CS25.147 apply th</p>	Partial Accept
NPA 2014/001/103	Sec 2 UK 233a	<p>The requirement clearly differs from the CS, however it is unclear whether this falls into the "capability" area of a requirements specification as the aircraft will be airworthy if it remains inside the CS25 envelope and may not be required to operate at the 00-970 Levels</p>	<p>consider revision, to remove capability requirements/design related information</p>	<p>Retain requirement as written as it is higher than the CS25 requirement. No change.</p>	Not Accepted
NPA 2014/001/104	Sec 2 UK.233a	<p>Directional Stability And Control - this clause and relative subparagraphs contain references to arrestor hooks, which seems to be inappropriate for this class/category of aircraft</p>		<p>There are aircraft variants that fall into this weight cat that have arrestor hooks i.e. S3 Viking (USN)</p>	Not Accepted
NPA 2014/001/105	Sec 2 UK233b	<p>The requirement clearly differs from the CS, however it is unclear whether this falls into the "capability" area of a requirements specification as the aircraft will be airworthy if it remains inside the CS25 envelope and may not be required to operate at the 00-970 Levels</p>	<p>consider revision, to remove capability requirements/design related information</p>	<p>This is a Certification requirement. Wording to remain as is.</p>	Not Accepted

NPA 2014/001/106	Sec 2 UK301a	The only delta from the information within CS 25.301 to CS 25.307 related to proof load tests is covered later in UK303a.	Propose that this requirement is deleted	CS25.301 is a general loads requirement. UK301 is also a general requirement to consider the requirements of DS00-970. Consider UK301a is therefore appropriate and suggest reject the NPA Recommendation / Comment.	Not Accepted
NPA 2014/001/107	Sec 2 UK305a	CS25 appears to cover design limit loads and ultimate loads adequately , proof load is covered in UK303a	Propose that this requirement is deleted	See NPA/2014/001/55. Agree that the requirement is duplicated within UK305a. However the best COA will be to take the requirement from UK305a, place in UK303a and then delete UK305a in toto	Accepted
NPA 2014/001/108	Sec 2 UK 321a	This is not a certification requirement	Propose that this requirement is deleted	This refers to Operational Flight Loads. Recommend Retitle to: Operational - General; AMC through DS 00-970 Part 1 Sect 2 Leaflet 3	Partial Accept
NPA 2014/001/109	Sec 2 CS25.331	CS25 states 'Symmetric manoeuvring conditions' whereas Def Stan states 'Symmetrical Flight Conditions'	What is the reason for 'flight' consider using 'Symmetric Manoeuvring Conditions'?	Pt 5 wording of 25.331: title not correct when checked with CS25: Change 25.331 to 'Symmetric Manoeuvring Conditions'	Accepted
NPA 2014/001/110	Sec 2 CS25.331	reference to UK341	should read UK 341A	Admin change	Accepted
NPA 2014/001/111	Sec 2 UK341a	Appears to be in conflict with UK331a as it implies that the CS25.331 requirement can be used - VD, VH gust loads appear very similar	explicitly detail any differences between def stan and CS	Considered acceptable as this clause takes into account operational flight conditions and associated gust loads. However, recommend that at UK331a that for GM reference to Clause 3.5 is deleted.	Not Accepted
NPA 2014/001/112	Sec 2 UK349a	The reason for this requirement is unclear it is considered that a civil derived baseline is appropriate.	Clarify military requirement.	The CS does not take into account combined pitch and roll, which is covered by DS00-970 requirements. Recommend retain as a UK requirement and reject the NPA comment.	Not Accepted
NPA 2014/001/113	Sec 2 UK351a	The reason for this requirement is unclear it is considered that a civil derived baseline is appropriate.	Clarify military requirement	The DS00-970 requirements are more explicit than the CS requirements. Recommend retain as a UK requirement and reject the NPA comment.	Not Accepted
NPA 2014/001/114	Sec 2 UK397a	CS25 has rather different control loads; not understood how the DS and CS technically relate	Seek clarification as to why CS is not used for the maximum control forces?	Required Def Stan max loads within the control circuit are greater than those of CS25 and may be dependent on what the aircraft is intended to be utilised for as to if the CS25 reqs are adequate. Recommend retain as a UK requirement and reject the NPA comment.	Not Accepted
NPA 2014/001/115	Sec 2 UK397a	Control System Loads - Surely this somewhat convoluted clause is redundant; given that CS.25-143 is applicable and it is clearly articulated at CS.25-143B that "It must be possible to make a smooth transition from one flight condition to any other flight condition without exceptional piloting skill, alertness, or strength...". Deletion of this additional requirement would more correctly put the burden of proof onto the Design Organisation to demonstrate that no 'exceptional' strength is required to control the aircraft.		Required Def Stan max loads within the control circuit are greater than those of CS25 and may be dependent on what the aircraft is intended to be utilised for as to if the CS25 reqs are adequate. Recommend retain as a UK requirement and reject the NPA comment.	Not Accepted
NPA 2014/001/116	Sec 2 UK397b	CS has defined values	in light of CS values should Def Stan Figures be classed as maximum values	PT 5 GM within CS25.397 makes reference to the fact that DS 00-970 values are greater than those used within the CS. Therefore any use of UK requirements will be max figures. Recommend retain as a UK requirement and reject the NPA comment.	Not Accepted
NPA 2014/001/117	Sec 2 UK 399a	Requirement should only be applicable where UK397A has been applied as compliance section indicates forces can be reduced to 50% from 75% defined in CS	add comment in compliance / guidance section on the applicability of UK399A	Agree that CS25.399 covers the loads from CS25.397. However if loads in UK397a are to be used, then UK399a will be applicable. Suggest amend to read "If UK397a requirements are applicable then dual control". Then within 399a(a) and (b) delete 'in Part 1 Section 3 Clause 3.9.6 for each inceptor'.	Accepted
NPA 2014/001/118	Sec 2 UK399a	Dual Control System - The Note "For dual control aeroplanes which are derived from a single pilot design of aeroplane and are intended..." suggests that this clause and detail might have been mistakenly carried forward from another part of 00-970, as no aircraft in this class/category are designed with a single pilot design.		The first note within the compliance column needs deleting. Recommend that second note is moved to GM.	Accepted
NPA 2014/001/119	Sec 2 UK459a	Incorrect references to requirements, recommend wording requirement more along the lines of the CS to be consistent	The loading for bomb bays, their operating mechanisms, and their supporting structures must be determined from test data.	The requirement references are correct and are the equivalent Pt 5 references from Pt 1 Sect3 3.4. In addition add 'must be determined from test data.' to final sentence of requirement.	Partial Accept
NPA 2014/001/120	Sec 2 UK562a	The requirement text implies that compliance is not mandatory - 'should be considered'	recognising the differences between D Stan / CS requirements if this is the intent clarify in compliance /guidance section	Text of final sentence read "...shall be considered." which is appropriate for requirement.	Not Accepted
NPA 2014/001/121	Sec 2 UK.571b	Tear Down Inspection - this is not certification standard - continuing airworthiness	Remove and put in AMC for UK.571a	See comments made at NPA/2014/001/065 -68 for retention of requirement and change in text for clarification.	Not Accepted
NPA 2014/001/122	Sec 2 UK.571c	Service Monitoring is not a certification requirement. It is a Continuing/Continued Airworthiness process which is covered in the RA 4000/5000 series.	Remove and put in AMC for UK.571a	See comments made at NPA/2014/001/065 -68 for retention of requirement and change in text for clarification.	Not Accepted
NPA 2014/001/123	Sec 2 UK.571d	Subject to the aeroplanes design philosophy, there may be no requirement for instrumentation?	Remove and put in AMC for UK.571a	Recommendation made to delete UK571.d See comments made at NPA/2014/001/069 - 70.	Accepted
NPA 2014/001/124	Sec 2 UK581a	no need to reference Part 1 Section 3 Clause 3.13 as it purely references out to section 4	remove reference to Part 1 Section 3 Clause 3.13.	Agree. Remove ref to Pt 1 sect 3 clause 3.13.	Accepted
NPA 2014/001/125	Sec 2 UK581a	incorrect reference to Part 1, Section 4, Clauses 4.27 to 40 and Def Stan 59-113	to read Part 1, Section 4, Clauses 4.27.23 - 40 it should be noted text errors exist in this section 0.008 in ² should read 0.028 in ²	Admin change	Accepted
NPA 2014/001/126	Sec 2 UK581a	does the prescriptive nature of the D STAN requirements add any additional protection beyond the CS requirement	Propose use of CS derived requirements.	consideration of the DS 00-970 lightning requirements list under UK581a are appropriate for military applications. Recommend reject. DefStan 59-113 is appropriate, civ a/c avoid lightning where possible, some mil a/c (eg MPA) are more likely to be in lightning threat regions, overall review of lightning requirements in 970/59-113 may be pertinent against CS Comment NPA 2014/001/128, same issue see also NPA 2014/001/124	Not Accepted

NPA 2014/001/127	Sec 2 UK.581a	Lightning Protection - Given the predominance of reference to CS.25 that has been used and that the DEF STANs and the CS both ultimately point to the same EUROCAE ED documents, would it not be more consistent to quote here something along the lines of: "For lightning protection - direct effects - and compliance with CS 25.581, CS 25.603(c), CS 25.899 and CS 25.954, the following interpretative material and acceptable means of compliance shall be used :		Consideration of the DS 00-970 lightning requirements list under UK581a are appropriate for military applications. Reject.	Not Accepted
NPA 2014/001/128	Sec 2 UK.581a (cont'd)	For lightning protection - indirect effects – and compliance with CS 25.1309 and CS 25.1316, the following interpretative material and acceptable means of compliance shall be used: • Environment and test waveforms defined in EUROCAE document ED-84 (including amendment N°1 dated 06/09/99 – Aircraft Lightning Environment and Related Test Waveforms) or equivalent SAE ARP5412. • Lightning zoning as defined in EUROCAE document ED-91 (including amendment N°1 dated 06/09/99 - Aircraft Lightning Zoning) or equivalent SAE ARP5414 instead of AC 20-53A. • Acceptable means of compliance as defined in EUROCAE document ED-81 (including amendment N°1 dated 26/08/99 – Certification of Aircraft Electrical/Electronic Systems for the Indirect Effects of Lightning) or equivalent SAE ARP5413.		See NPA/2014/001/126	
NPA 2014/001/129	UK.603a	Marking of Aircraft Parts	context of requirements beyond 748/2012 is needed as NSN requirements are covered under DEF STAN 00-600	Parts intended for specific mil applications will need to be part marked with the appropriate NSN. Rework "When agreed between the PTL/TAA and Design Approval Holder physical marking of parts shall be applied as detailed in Pt1 Sect 4 Clause 4.2." This then aligns with the requirements of the AMC to Pt 21 sect A sub part Q for the identification of products, parts and appliances. See other comments on marking requirements: need for marking should be considered generically: Are NSN's really required for certification/airworthiness: the requirement should be for unique marking. Endorse SPA rewording for this issue, but to be considered further.	Partial Accept
NPA 2014/001/130	Sec 2 UK.603a	Marking of Aircraft Parts - It is suggested that this requirement would be more appropriately contained amongst those related to the assessment and approval of a design organisation, where configuration control and part marking methodologies are more naturally reviewed.		See NPA/2014/0001/0129 for recommended COA and amended wording of the requirement	Partial Accept
NPA 2014/001/131	Sec 2 UK 609a	Requirement overlaps with CS25.729 CS25 also uses MILSTD 810 / ed 14G to qualify against sand and dust	remove duplication	609 does not overlap with 729 as 609 considers protection of structure and 729 is specific only to undercarriage. Recommend reject the NPA comments. Also see NPA/2014/001/14.	Not Accepted
NPA 2014/001/132	Sec 2 CS25.631 - UK 631a	Bracket missing	Insert bracket	Admin change	Accepted
NPA 2014/001/133	Sec 2 UK.631a	CS requirement appears to be more onerous to achieve than DEF STAN	Propose that this requirement is deleted	Provided the definition of Vc and Vm are analogous, the energy requirements of CS25.631 do seem to be more onerous. However, the requirements of Pt 1 sect 4.9 appear more stringent for the areas considered for birdstrike protection. Therefore recommend leave the UK requirement in place but amend with a statement that Dependant on the role of the aircraft the higher of the energy requirement of CS25.631 or Pt 1 sect 4.9 shall be considered against the overall requirements of Pt 1 section 4.9	Partial Accept
NPA 2014/001/134	Sec 2 UK 631a	Bird Strike Damage - It is suggested that this requirement might be inappropriate. The basic CS-25 requirement is properly based on the context of large aircraft operations, whereas that in Part 1 Section 4 has its basis in Fast Jet Operations. Moreover, the CS-25 applies to the complete aircraft, whereas that in Part one focuses more particularly on windscreens; providing therefore a much more limited consideration of the		See above NPA 2014/001/134. Retain UK163a	Not Accepted
NPA 2014/001/135	Sec 2 UK671a	Combat Vulnerability, Primary, Trim, Servo and Engine Controls - The inclusion of the second paragraph: "Control circuits shall be run in those areas of the airframe where combat damage is less probable with respect to threat and the role of the aeroplane; e.g. Duplicated parts of control circuits shall be located as far apart as possible." is felt to be un-necessarily restrictive. The basic CS.25 requirement unconditionally requires that the aircraft be capable of continued safe flight after any of the probably failure conditions arise; which through the inclusion of the first paragraph of UK.671a now includes combat damage. It is suggested that the subject paragraph is moved into the Compliance column and the 'shalls' converted into		Agree modification to text required, disagree CS25 is adequate: Move text to AMC (also modify Pt 1 at same time) Retain AMC as it stands, but add para as follows: 'Control circuits should be run in those areas of the airframe where combat damage is less probable with respect to threat and the role of the aeroplane. In addition duplicated parts of control circuits should be located as far apart as practicable.' Paragraphs related to trim and A/P systems may need reconsideration too.	Partial Accept
NPA 2014/001/136	Sec 2 UK 671b	not a true cert requirement, validation of use would be through workload / operability assessments AMC 25-11 Electronic Flight Deck Displays	Propose that this requirement is deleted	Not related to Electronic displays, this is more related to the controls themselves so the AMC referenced is not appropriate.	Not Accepted
NPA 2014/001/137	Sec 2 UK672a	not a cert requirement	Propose that this requirement is deleted	Agree wording as written isn't a requirement, delete	Accepted
NPA 2014/001/138	Sec 2 UK.689a	Ultimate Factor - This additional requirement seems to be unnecessary given that the unadulterated application of CS		As per original comment there are no ultimate control load factors listed within CS25 which only details	Not Accepted
NPA 2014/001/139	Sec 2 UK.721b	Guidance refers to UK20 - there is no UK20	Change to read UK 20 clauses.	Admin change	Accepted
NPA 2014/001/140	Sec 2 UK.721c	Dynamic Instability of the undercarriage units - This additional requirement seems to be un-necessary given the overarching requirements of CS 25.143 and 25.235 that have already been applied unconditionally.		Requirement UK721c is specific to undercarriage and is not necessarily covered in the CS25. CS25.143 is specific to controllability and manoeuvrability and CS25.235 is damage to structure due to damping of U/C on uneven ground. Reject comment and retain requirement.	Not Accepted

NPA 2014/001/141	Sec 2 UK.721d	no additional requirement just referencing UK20g	Propose that this requirement is deleted	Clause superseded.	Not Accepted
NPA 2014/001/142	Sec 2 UK723a	Shock Absorption Tests - Given that most new aircraft designs have computer controlled flight control systems, this requirement is unlikely to be relevant. It is suggested that the text be shifted to the Guidance column, so that its relevance can be considered in the context of the aircraft design being considered.		UK723a relates to undercarriage tests and has nothing to do with flight control systems. Requirement is applicable to mil ops. Recommend Reject.	Not Accepted
NPA 2014/001/143	Sec 2 UK733a	Tyres – Operating Conditions Is this additional requirement really relevant?		Considered acceptable as this clause takes into account the military operating environment for wheels, tyres and brakes. Recommend reject.	Not Accepted
NPA 2014/001/144	Sec 2 UK735a	Parking - It is suggested that reference to flying control locks being applied be deleted.		Current wording is confusing. Recommend replace with "The parking brake shall be capable of meeting the requirements of CS 25.735 for at least 24 hours when all engines are stopped, with any required inter-dependant systems engaged (for example control system gust locks) and no power is supplied from an outside source. "	Accepted
NPA 2014/001/145	Sec 2 UK735a	Most large aircraft will be unable to comply as they are not fitted with flying control locks.		As above	Noted
NPA 2014/001/146	Sec 2 UK 735b	Is there any value for this requirement beyond the CS equivalent of 6 stops	Propose that this requirement is deleted	Recommend reject. Unclear where the requirement originates from however insufficient argument to reduce requirement.	Not Accepted
NPA 2014/001/147	Sec 2 UK735c	this would be covered under CS 25.1435 and AMC 25.1309	Propose that this requirement is deleted	This requirement is covered in CS 25.1435 and therefore this Def Stan 970 requirement can be removed.	Accepted
NPA 2014/001/148	Sec 2 UK735e	CS 25.1435 has higher values	Propose that this requirement is deleted	The brake operating energy can vary i.e. hydraulic, pneumatic etc and consequently the proof and ultimate factors could vary. CS 25 requirements for the specific operating energy will cover proof and ultimate factors requirements, therefore this Def Stan requirement can be removed.	Accepted
NPA 2014/001/149	Sec 2 UK735e	Proof and Ultimate Factors - Should this additional requirement apply to 735c rather than e? Notwithstanding the above; the text "The brake control circuit shall have proof and ultimate factors not less than 1.125 and 1.5 respectively under the appropriate loads as determined by the Aeroplane Designer." seems un-necessarily prescriptive given the unadulterated application of CS 25.1309 later in the		The brake operating energy can vary i.e. hydraulic, pneumatic etc and consequently the proof and ultimate factors could vary. CS 25 requirements for the specific operating energy will cover proof and ultimate factors requirements, therefore this Def Stan requirement can be removed.	Accepted
NPA 2014/001/150	Sec 2 UK735f (d)	is this really adding much value beyond the CS requirement	Propose that this requirement is deleted	Retain 'Unless otherwise stated in the Aeroplane Specification an anti skid system approved by the TAA shall be provided for all braked wheels' but remove the remainder of the statement and replace with CS 25 and AMC Anti skid requirements are to be met. It is not clear why we, the MAA wish to specify that all part 5 FW aircraft must have an anti skid system, and why 'approved by the TAA'. Why would the fitting of AS be a military requirement over and above the CS? Need justification. Secondly, if we do retain this requirement the selected system should not be 'approved by the TAA', this assumes the TAA has design competence in selecting and specifying this type of system, which is the DOs job, not the TAAs. Reopened: MPS to review. Retain 'Unless otherwise stated in the Aeroplane Specification an anti skid system shall be provided for all braked wheels' but remove the remainder of the statement and replace with CS 25 and AMC Anti skid requ	Partial Accept
NPA 2014/001/151	Sec 2 UK.735f (d)	Anti Skid System - Should this additional requirement apply to 735e rather than f? Notwithstanding the above; should the text "Project Team Leader" read "Type Airworthiness Authority"?		Retain 'Unless otherwise stated in the Aeroplane Specification an anti skid system approved by the TAA shall be provided for all braked wheels' but remove the remainder of the statement and replace with CS 25 and AMC Anti skid requirements are to be met. Retain 'Unless otherwise stated in the Aeroplane Specification an anti skid system shall be provided for all braked wheels' but remove the remainder of the statement and replace with CS 25 and AMC Anti skid requirements are to be met.	Partial Accept
NPA 2014/001/152	Sec 2 UK745a	is this really adding much value beyond the CS requirement	Propose that this requirement is deleted	This requirement is too specific. CS25 covers the requirement and consequently the Def stan requirement can be removed.	Accepted
NPA 2014/001/153	Sec 2 UK771a	Colour Standards at Crew Stations - Other than carrying forward a historical precedent, no logic is apparent from this 'paint it grey' requirement. Current civil aircraft design organisations have more rigorously considered the man-machine interface and their cockpits safely house crew on extended operations. It is suggested that the requirement is either obsolete and be deleted, or further consideration be given to the content, e.g. mandating that the TAA consider the ergonomic, HF, NVG etc. requirements with the Design Organisation in determining what colours should apply in the crew accommodations and workspace		Not a structures requirement. However consideration should be given to the requirement being presented as "Crew station colour schemes shall be considered by the PTL with consideration to ergonomic, HF and use of NVG's. Requirements shall be agreed with the Design Organisation in determining the colour scheme to be applied at crew stations." Compliance should be as per Pt 1 sect 7.4.15-16 and STANAG 3701.	Partial Accept
NPA 2014/001/154	Sec 2 UK 773b	This is covered under UK773a	Propose that this requirement is deleted	This is specific to the requirements for AAR and is not necessarily covered within UK773a. Recommend reject the NPA comment and keep this requirement.	Not Accepted
NPA 2014/001/155	Sec 2 UK773b	Pilot Compartment View (AAR)		Admin change	Not Accepted
NPA 2014/001/156	Sec 2 UK773e	This is not a cert requirement	Propose that this requirement is deleted	This requirement is dependant and ensures visual requirements for reconnaissance type aircraft is needed dependant on aircraft role,. Therefore reject recommendation. This is not a certification requirement as written, it's an operational requirement, in addition it is impossible to achieve compliance with the word 'good'; rewrite.	Partial Accept
NPA 2014/001/157	Sec 2 UK775a	This is not a cert requirement	Propose that this requirement is deleted	Agree remove Str4a 6/1/15. Endorsed Struc4 6/1/15.	Accepted

NPA 2014/001/158	Sec 2 UK 775b	Full stop missing between UK and 775b	Insert full stop	Admin change	Not Accepted
NPA 2014/001/159	Sec 2 UK 775b	Windshield and Windows, Bird strike requirements - refers to Pt 1 Sec 4 Cl 4.13.8 which is not related to this requirement	Propose that this requirement is deleted	Admin change	Accepted
NPA 2014/001/160	Sec 2 UK775b	Windshield and Windows, Bird strike requirements - See comments above related to UK 631a - Bird Strike Damage		The reference in the requirements column needs to be changed to UK631a (if the UK631a requirement is kept).	Accepted
NPA 2014/001/161	Sec 2 UK783b	Full stop missing between UK and 783b	Insert full stop	Admin change	Not Accepted
NPA 2014/001/162	Sec 2 UK783b	title incorrect as it relates also to ultimate loads - first para is a duplicate of requirements contained within CS25.303 and UK303A last para is superfluous as it repeats CS25.365	reword to "The aeroplane stationary with the doors, hoods and hatches secured in the fully open position in winds of up to 20 m/s (39 kts) from any direction."	Requirement seems appropriate as door loads may differ under mil op requirements. Reject NPA comments.	Not Accepted
NPA 2014/001/163	Sec 2 UK783b	Door Proof Load Factors - This seems an un-necessary repetition of the content of Subpart C – Structure.		Requirement seems appropriate as door loads may differ under mil op requirements. Reject NPA comments.	Not Accepted
NPA 2014/001/164	Sec 2 UK785a	Open Doors in Flight, Crew Restraint - Whilst accepting that crew members whose duties require them to stand near an open door in flight should be provided a suitable harness, should not the Design and Airworthiness Requirement for the Service Aircraft only require that provision of a suitable attachment point be made, rather than a harness		Accept comment and re-write requirement to read "Open Doors in Flight, Crew Restraint - A suitable attachment point shall be provided for a suitable crew harness configuration when operations require crew members to stand near an open door in flight".	Accepted
NPA 2014/001/165	Sec 2 UK785b	Extract from CS25 Design Eye Position - The position at each pilot's station from which a seated pilot achieves the required combination of outside visibility and instrument scan. The design eye position (DEP) is a single point selected by the applicant that meets the specifications of CS 25.773(d), CS 25.777(c), and CS 25.1321 for each pilot station. It is normally a point fixed in relation to the aircraft structure (neutral seat reference point) at which the midpoint of the pilot's eyes should be located when seated at the normal position. The DEP is the principal dimensional reference point for the location of flight deck panels, controls, displays, and external vision.	Consider deletion of this requirement	Agree Delete	Accepted
NPA 2014/001/166	Sec 2 UK785c	The fact that the seat is adjustable CS25.777 and satisfies Crash loads considered in CS25.561 would imply some form of locking device	Consider deletion of this requirement	Retain requirement as lock not explicit in civil requirements	Not Accepted
NPA 2014/001/167	Sec 2	Full stop missing between UK and 785e - 785g	Insert full stop	Admin change	Not Accepted
NPA 2014/001/168	Sec 2 CS25.811a	Apart from one part of the compliance requirement to UK.811a that requires black and golden yellow striping around emergency exits, there appears to be no technical advantage in maintaining the Part 5 requirement. In fact UK.811a and its compliance will lead to a conflict of compliance against CS 25.811(a), particularly where letter height and colours of signage are stated.	It is recommended that UK.811a is removed; if a real safety requirement exists with respect to striping around exits then this could be maintained as mil specific AMC but it should be read in conjunction with the AMC for the CS.	CS 25.811 represents civil requirement developed for 'standard civil usage', should retain 811a as mil usage requirement should be retained. A/C TCB would justify which requirement to be used. Recommend retain unless further information on suitability of CS requirement emerge.	Not Accepted
NPA 2014/001/169	Sec 2 UK 831a	Full stop missing between UK and 831a	Insert full stop	Admin change	Not Accepted
NPA 2014/001/170	Sec 2 UK841a	Clause 3.7 reference to low pressure differential systems (fast jet only) Pressure schedule in 00-970 is different to CS 25.841 in that it is required to maintain a cabin altitude of 6060 ft at cruise altitude compared with 8000 ft. the requirement for Standard couplings in accordance with Def Stan 53-68 (cancelled) shall be used in the duct system is not a valid cert requirement. 3.7.20 Warning requirements do not align with the CS	Consider revision of requirement	Agree to remove most of Def Stan reqmt. however certain Clause 3.7 reqmts. should be retained (in addition to CS25.841). Replacement wording for UK841 is below: UK841a - In addition to the requirements of clause CS25.841 (provision of cabin pressure altitude of not more than 2438 m (8000 ft) at the maximum operating altitude under normal operating conditions), the maximum cabin differential pressure shall be as high as possible consistent with weight and other considerations. At least it shall be such that a cabin altitude of 1,850 m (6,060 ft) is maintained at the maximum cruising altitude stated in the Aeroplane Specification. UK841b - Means shall be provided whereby the pressure differential can be reduced to zero at any altitude. Caution information must be provided to alert the crew when the aeroplane is under controlled depressurisation flight conditions above 8 000 ft to remind them that oxygen supply for the crew and occupants is required.	Partial Accept
NPA 2014/001/171	Sec 2 UK851b	Referencing out to leaflet 87 is not appropriate	Consider revision of requirement	TW(ADS1) Agree rewrite required (need to put reqmt into correct column). Move 'Combat fire protection shall be included for example for low flying Tactical Transport and during take off, approach, overshoot and landing' from AMC into Requirement and clarify AMC to state 'Applicable detail based Part 1 Section 4 Leaflet 87. Additionally for separation of flight critical systems (e.g. ballistic effects etc), refer to Part 13 Para 3.9'	Accepted
NPA 2014/001/172	Sec 2 UK 858a	Full stop missing between UK and 858a	Insert full stop	Admin change	Noted
NPA 2014/001/173	Sec 2 UK 899a	AMC 899 contains significantly more detail broadly equivalent to Section 4 Clauses 4.27.7	consider revision to refer only to specific additional clauses	AMC 899 covers Electrical Bonding & Protection Against Static Electricity and UK 899a brings in specific National	Not Accepted
NPA 2014/001/174	Sec 2 UK,901a	Comma between UK and 901a	Insert full stop	Admin change	Noted

NPA 2014/001/175	Sec 2 UK901a	<p>This implies that we will be asking R-R, GE, P&W, to comply with the whole of DStan 00-970 Part 11, instead of the normal CS-E or FAR-33 baselines. Additional military specific requirements should be in relation to Subpart E of CS-E, and referenced in a separate section of Part 5 or separated in a specific section of Part 11. Voyager and A400M were certified with very few military requirements over and above the civil certification requirements. Furthermore, A400M engine requirements (through MSCs) were believed to be later transposed to Civil Authority ownership (SCs).</p> <p>Engine Reqts should be divorced from this section of Part 5 with Section 2's scope limited to Engine Installation only, similar to CS-25 / CS-E</p> <p>"Engines fitted to large aeroplanes should be certificated to the requirements of Def Stan 00-970 Part 11. Where reference is made in CS 25 to a requirement in CS-E this shall be interpreted to mean the corresponding requirement in Def Stan 00-970 Part 11. Where applicable to the role and use of the aeroplane, the requirements of Part 11 Section 4 shall be applied as determined</p>	Delete the current wording implies we do not accept CS-E or FAR-33 cert bases.	RA1500 mandates the use of Def Stan 00-970 as the default standard. The wording does not imply that we do not accept CS-E or FAR-33. Having reviewed this requirement, it should be placed under UK.903a (Engines) not UK.901a (Installation)	Partial Accept
NPA 2014/001/176	Sec 2 UK937a	CS 25.937, CS 25.1027 and CS 25.901 cover all of the requirements in 5.1.63	Consider deletion of requirement	The originators of UK.937a and UK.951a were Structures 1 – Whilst I could pass comment, they are the originators of the UK requirement and as such they will be required to conduct the SME review. Where there are references to Battle Damage and Part 1, should these not refer straight out to Part 13? When we come to review Part 1, we will only have to review Part 5 again, and any generic requirements should be captured in Part 13. We need a consistent approach to how we use and reference Part 13. (email 20141219-Def Stan 00-970 Pt 5 NPA feedback_MPS2a comments) Struct 1 Please review Recommend reject NPA comment. unlike civil aircraft mil operations may require engines to be shut down and feathered and then restarted in flight for increased duration on task. This is not necessarily covered in CS25.937 and UK937a is therefore considered appropriate.	Not Accepted
NPA 2014/001/177	Sec 2 UK937a	<p>Not sure that 5.1.63 adds any higher level of safety over 25.937 ...</p> <p>5.1.63 Feathering: (a) Each propeller must have the capability of being feathered under the most adverse conditions of altitude and airspeed likely to arise following sudden engine failure. (Surely this is covered by the less prescriptive Reqt in 25.937) (b) On multi-engine aeroplanes, a cycle of feather, unfeather and feather shall be possible over the range of operating conditions approved for the aeroplane. (CS-E 180 requires a 10 feather cycle test to be carried out - therefore Reqt N/A) (c) On single engine aeroplanes, it is desirable that the conditions of (b) shall be met, unless a system capable of carrying out only one complete feather can be justified with the agreement of the Project Team Leader who will assess the need for carrying out feathering and unfeathering during training. (Surely an ELoS is achieved through 25.937?) (d) The feathering system for each propeller shall be separate from and independent of those of other propellers. (Isn't this covered by the "no single failure reqt"?) <u>Means to prevent inadvertent operation shall be provided.</u></p>	Review req rationale with technical SME support.	Same as NPA 2014/001/0176. Recommend reject NPA comment. unlike civil aircraft mil operations may require engines to be shut down and feathered and then restarted in flight for increased duration on task. This is not necessarily covered in CS25.937 and UK937a is therefore considered appropriate.	Not Accepted
NPA 2014/001/178	Sec 2 UK951a	This requirement does not belong in SubPart E. Handling Characteristic requirements belong in SubPart B.	Transfer to other section.	Agree move to Subpart B (possibly under 25.171).	Accepted
NPA 2014/001/179	Sec 2 UK951b	<p>The requirement is not necessary as it is covered by other CS 25 requirements, namely 903(b) and 25.953, covering independence requirements for engines and their related systems, and fuel systems respectively.</p> <p>Further, battle damage vulnerability is a Section 3 (Military specific) requirement.</p>	Consider deletion of requirement	NPA comments rejected. CS25.903 only refers to engines and no ref is made to fuel systems. CS25.953 is applicable but UK951b covers the areas applicable to reduction of vulnerability to battle damage. for future work it may be necessary to uplift all Vulnerability of battle damage into part 13 in total.	Not Accepted
NPA 2014/001/180	UK963a	<p>The requirement is not necessary as it is covered by 25.953, covering independence requirements for fuel systems.</p> <p>Further, battle damage vulnerability is a Section 3 (Military specific) requirement.</p>	Consider deletion of requirement	The Draft Pt 5 is currently incorrect. UK963a as published should be deleted as it is covered by UK 951b - Reduction of vulnerability to battle damage. UK 963a remains extant but needs to be expanded to cover up to 5.2.64 to consider jettisonable tanks which may be appropriate for a large tactical role aircraft.	Partial Accept
NPA 2014/001/181	UK965a	25.965 is a comprehensive group of requirements to confirm that non-leakage is assured through design and operational considerations. It is not clear why UK.965a is necessary, i.e. why 25.965 does not provide an ELoS.	Provide rationale for requirement, to include shortfall analysis of 25.965 and explanation of how shortfall is assured by UK.965a.	CS25.965 does not include a static test. This military requirement originates from Joint Airworthiness Committee (JAC) Leaflet 578, dated September 1952, and is currently included in Def Stan Pt 1 Sect 5 Clause 5.2.153. Recommend requirement is retained in Part 5.	Not Accepted
NPA 2014/001/182	Sec 2 UK975a	It could be argued that CS25.975 covers AAR CS25.975 a(3)(iii) Refuelling and defueling (where applicable);	Propose that this requirement is deleted	CS25.975 does not cover fuel tank venting requirements for AAR. Therefore Part 5 needs to signpost to Part 13, Sect 3.5 for AAR refuelling design requirements.	Not Accepted
NPA 2014/001/183	Sec 2 UK981a	No significant comments. Cross-referencing could be removed as the two cross-referenced requirements are relatively short.	Remove cross-referencing and copy Part 1 (Section 5) clauses into this requirement.	Agree to move wording to the Part 5, in 2 requirements 981a and 981b, wording as in the referenced clauses of section 5, however this refers to AMC 25.981: need to identify appropriate AMC (25.981 doesn't refer to ballistic ignition sources). Copy 5.2.34 to UK25.981a with no specific AMC; Copy 5.2.35 to uk25.981b with AMC as in the Section 5 and AMC25.981	Accepted

NPA 2014/001/184	Sec 2 UK1301a	Config management is a separate subject to the 1301 requirement. 25.1301 is a design functioning/operating requirement, and marking requirements are not applicable here. Marking requirements belong outside certification specifications.	Propose that this requirement is deleted	Agree requirements referenced in part 1 overly prescriptive and not necessary for Cert, 1301 itself not adequate though, change 1301a to 'All parts shall be marked where this is necessary to demonstrate compliance with design and individual aircraft build standard' AMC: 'Suitable identification methods and procedures should be identified in the Aeroplane Specification in order to support Configuration Management and Continuing Airworthiness' Could add GM to provide guidance on suitable marking methods (industry standards)	Accepted
NPA 2014/001/185	Sec 2 UK1301c	Tempest is not a certification requirement	Propose that this requirement is deleted	The requirement for the DO to discuss Tempest requirements with the PTL appear appropriate as the operating envelope that we require the aircraft for may require the DO to choose specific items to meet the need within the design. Whilst there is correlation between build standard/actual build and TEMPEST performance, the requirement for TEMPEST originates from Stds other than Def Stan 00-970.	Accepted
NPA 2014/001/186	Sec 2 UK1301d	EMC is covered under CS25.1309	Propose that this requirement is deleted	Disagree with proposal to delete, however this needs to be rewritten as there is no requirement written in the requirement field. Recommend: Requirement: 'The Military Electromagnetic Compatibility and field strength Requirements in the Aeroplane Specification shall be achieved': AMC: 'Specific test methods, margins and associated test detail should be specified by the Project Team Leader and an agreed programme of analysis and testing completed, see guidance material UK1301d' Retain GM as written 1301d gives the PTL the ability to vary the requirement in light of the role of the specific aircraft being built. Military aircraft may require a higher EMC level due to the nature of use. Reject	Partial Accept
NPA 2014/001/187	Sec 2 UK1302a	Pt 5 Sect 3 may be more appropriate.	Rewrite for clarity HF/operation not physical design and move	Agree comment: needs rewrite to reflect that CS25.1302 requirements need to be achieved when utilising NBC equipment, also when reviewing Checklist comments on this from ES they recommend referencing out to some elements of Part 1. Rewrite requirement as: Rqmt 'Where the Aeroplane Specification requires the flight crew to utilise NBC personal protection equipment, the requirements of CS25.1302 shall be satisfied' AMC: '25.1302'. GM: 'For NBC specific requirements refer to Part 5, Section 3, clause 3.1.24 referring out to Part 13'	Partial Accept
NPA 2014/001/188	Sec 2 UK1302b	This is a standardisation requirement, not a certification requirement. Table 25 is very prescriptive. If there is a need for standardised controls, standardisation should be achieved through the use of STANAG requirements, not DStan requirements.	Propose that this requirement is deleted	This requirement should be retained, however it should be changed to reflect the requirements of Part 1, ie that the AAR controls shall be grouped with the rest of the fuel system controls, AMC should be CS25.1302. The list of controls etc is already in the Part 13 and therefore the reference to Part 13 requirements in section 3 should draw all AAR requirements in that area into a TCB for an aircraft which has AAR capability (tanker or receiver) Therefore change requirement to: 'Air to Air refuelling controls which are required to be operated by the flight crew shall be located with the main fuel system controls' AMC: 25.1302. MPS requested to review/amend/endorse	Accepted
NPA 2014/001/189	Sec 2 UK1310a	Not a certification requirement	Propose that this requirement is deleted	Agree with DAT: '50% growth' potential is not a certification requirement: the requirement should be to ensure safe operation in all configurations IAW CS25.1310, delete requirement	Accepted
NPA 2014/001/190	Sec 2 UK1315a	The following is N/A - Where the Aircraft Type and role requires it, the requirements of Pt1 Sect 5 Clause 51.90 and Section 6 Leaflet 20 Para3.6 shall be applied as determined by the PT Lead	Requirements would be better placed against CS 25.943 if applicable	UK.1315a needs to be split between a UK.943a (new requirement) that will capture the engine aspects of negative acceleration leaving UK.1315 to focus on the wider systems related negative acceleration issues. This will require input from both MPS2 and MPS3. Further investigation is required into the 10s test requirement that is detailed from reference Pt1 Sect 5 Clause 5.1.90 – is there a JAC paper that discusses this? If not, the 5s test requirement has proved to be safe for civil aircraft, and A400M – we may wish to use the 5s test noting that CS 25.943 and CS 25.1315 also capture the requirement to meet the flight envelope in CS 25.333 and also the greatest duration expected for the acceleration. Requirement for compliance with Section 6 Leaflet 20 Para 3.6 needs to remain. However will require further review during Pt 1 review. No requirement for UK.943a. Reference to Section 1, Part 5, Clause 5.1.90 is being removed from UK.1315a. Further detail at NPA 2014/001/192.	Not Accepted
NPA 2014/001/191	Sec 2 UK1315a	Incorrect reference clause is 5.1.90 not 51.90		Admin change	Accepted

NPA 2014/001/192	Sec 2 UK1315a	The difference between 970 and the CS is the duration of the test , 10 seconds (970) versus 5 second (CS) or the longest duration ac can experience negative G. Does the 970 extension add any real benefit?	Propose that this requirement is deleted	Requirement for compliance with Section 6 Leaflet 20 Para 3.6 needs to remain. however will require further review during part 1 review. he 10s requirement was introduced through Joint Airworthiness Committee paper no.549 – behaviour of aircraft under negative acceleration, dated Feb 1952, in order to prevent a considerable loss in altitude as a result of an engine restart following a flame out as a result of fuel starvation. However, following a review of CS-25, CS 25.943, CS-25.333 and CS-25.1315 are no less stringent than Section 1, Part 5, Clause 5.1.90, and in some cases they can be more stringent. Recommend that reference to Section 1, Part 5, Clause 5.1.90 is removed from UK.1315a. Wording to be Negative Acceleration. Where the Aircraft Type and role requires it, the requirements of Section 6 Leaflet 20 Para 3.6 shall be applied as determined by the PT Lead.	Not Accepted
NPA 2014/001/193	Sec 2 UK1316a		Consider being consistent with comments at UK581a	The requirement is the same except for the inclusion of which Def Stan to show compliance against. Cut UK 1316a down to Extra compliance statement 'Compliance against this requirement shall be shown using Def Stan 59-113.'	Accepted
NPA 2014/001/194	Sec 2 UK 1321a	Duplicated by 1381a. NVG compatibility not suited to scope of 25.1321. The more appropriate location is within 25.1381.	Propose that this requirement is deleted	Admin change	Accepted
NPA 2014/001/195	Sec 2 UK 1322a	Is there really a requirement for visual signing an "Abandon Aircraft" command? Are internal communication channels insufficient?		Is there a military Delta here for the ability to communicate with crew who are remote from the pilot to tell them to escape. Recommend retain, but rewrite to remove reference to Part 1. EG: 'In multi-seat aeroplanes, where crew in-flight escape is possible there shall be a means for Pilots to order crew to abandon the aircraft' AMC: 'a) The means of communication should be both aural and visual (b) At least one method of communicating the Abandon Aircraft order should be available in the event of catastrophic failures arising from CS25.1309 analysis or arising as a result of enemy action'	Partial Accept
NPA 2014/001/196	Sec 2 UK 1329a	Is this a PTL or TAA responsibility? This is a flight safety requirement, so I think its a responsibility of both.	Generic issue between PTL/TAA needs to be resolved.	This is a PTL responsibility, will be covered in his RTSR, no change to rqmt, close comment	Not Accepted
NPA 2014/001/197	Sec 2 UK 1381b	Full stop missing between UK and 1381b	Insert full stop	Admin change	Noted
NPA 2014/001/198	Sec 2 UK 1381b	This requirement is effectively implied within the text of 25.1381. Therefore, this additional requirement is unnecessary.	Propose that this requirement is deleted	This requirement should be explicit. Reject	Not Accepted
NPA 2014/001/199	Sec 2 UK 1383b	(a) On all aeroplanes required to operate at night, the external lighting circuits shall be controlled by a single master switch. All aeroplanes shall be equipped with sufficient illumination for night formation flying. (b) All external lighting shall be dimmable. (c) There should be no possibility of downward recognition lights	Consider re-location to Section 3	It is correctly placed with other external light requirements. Reject	Not Accepted
NPA 2014/001/200	Sec 2 UK 1411A and UK 1411b	CS 25.1561 Safety equipment (a) Each safety equipment control to be operated by the crew in emergency, such as controls for automatic liferaft releases, must be plainly marked as to its method of operation. (b) Each location, such as a locker or compartment, that carries any fire extinguishing, signalling, or other lifesaving equipment must be marked accordingly. (c) Stowage provisions for required emergency equipment must be conspicuously marked to identify the contents and facilitate the easy removal of the equipment. (d) Each liferaft must have obviously marked operating instructions. (e) Approved survival equipment must be marked for identification and method of operation.	propose deletion of UK1411A and UK 1411B as they are covered by the CS -	UK 1411a - agree, delete. UK 1411b - retain - the requirement for survivors to be able to release liferafts from outside the aircraft is not covered by CS-25. Three new requirements covering first aid and emergency medical kits added to .6 Subpt F from 970 (1141b, 1141c, 1141d)	Partial Accept
NPA 2014/001/201	Sec 2 UK 1411a	Marking is not a certification requirement. Such requirements should be contained within a separate MoD procurement standard.	Move to Section 3 or elsewhere	Delete (see NPA/2014/001/22).	Not Accepted
NPA 2014/001/202	Sec 2 UK 1411b	CS25 already has the sub-requirement below: Rafts automatically or remotely released outside the aeroplane must be attached to the aeroplane by means of the static line prescribed in CS 25.1415. 25.1415(b) Each liferaft and each life preserver must be approved. In addition – (1) Unless excess rafts of enough capacity are provided, the buoyancy and seating capacity beyond the rated capacity of the rafts must accommodate all occupants of the aeroplane in the event of a loss of one raft of the largest rated capacity; and (2) Each raft must have a trailing line, and must have a static line designed to hold the raft near the aeroplane but to release it if the aeroplane becomes totally submerged. Therefore, as the Authority retains Approval privileges there is no need for this requirement.	Propose that this requirement is deleted	Retain - the requirement for survivors to be able to release liferafts from outside the aircraft is not covered by CS-25.	Not Accepted

NPA 2014/001/203	Sec 2 UK 1419a	WEAPONS AND WEAPON CARRIERS 1.5.1.22 Weapons (system, sights, stores, pods, guns etc.) whilst being carried by aeroplanes in icing or snow, must not be adversely affected by accretions during use, deployment or jettison, unless the weapon or aeroplane specification permits otherwise. Furthermore, ice accretion on such systems must not hazard the aeroplane during use of the weapon system.	Para 1.5.1.22 is the only additional requirement not previously covered by the CS refer to this requirement explicitly or incorporate requirement text within part 5	Agree that only requirement 1.5.1.22 is applicable to weapon systems.	Accepted
NPA 2014/001/204	Sec 2 UK.1423a	Public Address System, Pilot Priority Control The pilots shall be able to take priority control and side tone is only required at the pilots' stations. Covered under CS25.1423(f) - Be accessible for immediate use from each of two flight-crew member stations in the pilot compartment	Propose that this requirement is deleted	CS25.1423(f) requires it to be accessible for immediate use from each of two flight-crew member stations in the pilot compartment. It does not state that the pilot must have priority control. There is no requirement for the pilots take priority control, CS clause is adequate. Delete	Accepted
NPA 2014/001/205	Sec 2 UK1441	Oxygen Systems Large Aircraft - Whilst not arguing with the content related to Oxygen Systems per se, it is suggested that the content of Part 13 Leaflet 3 might benefit from some revision, as some elements of its content were drawn into question during the recent certification activities. The certification review items discussed during the TCE review for A400M could form a reasonable starting point for further consideration between the MAA, RAFCAM and the QinetiQ fraternities.		Agree that review needs to be carried out, and should be part of a programme of engagement, this is unlikely to be addressed in the short term, unless major issues exist in current reqmts making them unworkable (in comparison with existing Pt 1) then publish and engage as proposed. Accept comment, but retain requirements as written for publication, pending further review	Noted
NPA 2014/001/206	Sec 2 CS25.1445	CS25 states 'Equipment standards for the Oxygen distributing system' whereas Def Stan states 'Equipments Standards for the Distributing System' and no reference to CS25		Minor issue: The word 'Oxygen' is missing from the Part 5 title, insert 'Oxygen' into title to make it same as CS25.1445	Accepted
NPA 2014/001/207	Sec 2 UK 1447a	Full stop missing between UK and 1447a	Insert full stop	Admin change	Not Accepted
NPA 2014/001/208	Sec 2 UK1450a-h	general - additional requirements appear to be design related and not certification specific	Propose that this requirement is deleted	Some elements can be viewed as design, and not certification, but not easy to 'disentangle' this in the short term, retain pending combined review programme for Oxy etc requirements with stakeholders.	Noted
NPA 2014/001/209	Sec 2 UK 1459a	unclear if requirement adds any value beyond CS	Propose that this requirement is deleted	Having reviewed CS25 requirement and Pt 13 requirement I strongly suggest that this requirement is retained as it provides far more detail relevant to military related requirements.	Not Accepted
NPA 2014/001/210	Sec 2 UK.1533a	quotes 'described in UK20 requirements'	Consider changing to read 'UK 20 clauses' or change previous entries to read UK 20 requirements for consistency	Admin change	Accepted
NPA 2014/001/211	Sec 2 UK1707a	this is not considered to be a certification requirement	Propose that this requirement is deleted	Clearances are adequately covered in CS1707. Growth potential should be defined in conjunction with the appropriate PTL. Change UK1707a to read 'Growth potential shall be agreed with the relevant Project Team Leader'. MAA-Cert-ES1-AvSys - See response to NPA comment 2014/001/053 and close in conjunction with that statement.	Partial Accept
NPA 2014/001/212	Sec 2 UK 1729a	MRP compliance is not a certification requirement, just like a Part 21 requirement should/does not appear in CS-25.	Covered under uk1529a? consider revision.	This specifically comments on EWIS, for which there are further RA requirements detailing procurement and continued airworthiness. RA 1500 requires the MRP so this is nugatory. Move to UK1529a and cover whole aircraft continued airworthiness.	Accepted
NPA 2014/001/213	Sec 2 CS25J1141	CS25 has a title 'APU CONTROLS AND ACCESSORIES'	Insert a title in the Def Stan	Admin change	Accepted
NPA 2014/001/214	Sec 2 CS25 Appendices	The Def Stan does not include CS25 Appendix A which is referred to from within the CS25 which is referred to from the Def Stan	Insert reference to Appendix A	Admin change	Accepted
NPA 2014/001/215	AMC table	General AMC which is not referred to within the Def Stan.	General AMC which is not referred to within the Def Stan. Clarify what the purpose of this table?	close comment with clarification	Partial Accept
NPA 2014/001/216	UK3.1.7	Referencing the whole of part 13 will lead to ambiguity as it will contradict elements of the CS	Identify specific requirements that are applicable beyond use of part 5/cs25, suggest identification against specific role / mission fit	There was never an intention to reference the whole of part 13 The wording clearly states that is used selectively as a reference where applicable.	Not Accepted
NPA 2014/001/217	UK.3.1.9	Refers to BS 3G 100 which is believed to have been withdrawn?	use extant standards ideally international/civilian	Agree should find different standard, comment remains open pending resolution, but does not prevent publication, also need to consider same issue in Parts 1 and 7	Noted
NPA 2014/001/218		The term PTL is widely used where it is more appropriate to use TAA.		reject see previous comments	Not Accepted
NPA 2014/001/219		There are many cross-references to other parts of the Def Stan 00-970	Reduce the cross-referencing by embedding other Def Stan req's into Part 5	reject, ongoing 970 development will achieve this, close comment	Not Accepted