

Part-26´s påverkan på AMP

- 26.370 Continuing airworthiness tasks and aircraft maintenance programme (*Gäller från 2021-02-26*)
- AMC 20-20A Continuing structural integrity programme
- M.A.302 Aircraft maintenance programme



Presentatör

Johan Brunnberg

2021-04-27

Flygteknisk Inspektör

Sjö- och luftfartsavdelningen

Enheten för operatörer, fartyg och luftfartyg

Sektionen för teknisk operation

 **TRANSPORT
STYRELSEN**

DTBIP

An approved Damage-Tolerance-Based
Inspection Programme

*Ett godkänt skadetoleransbaserat
inspektionsprogram*

R&M on FCS & on DTBIP

A means for addressing the adverse effects that
Repairs and Modifications may have on Fatigue-
Critical Structure and on inspections provided
for in point (a)(i)

*Ett förfarande för att hantera de negativa effekter
som reparationerna och modifieringarna kan ha på
utmattningskritisk struktur och på de inspektioner
som anges i led a i*

Continuing structural integrity programme for ageing aeroplanes structures

Program för fortsatt strukturintegritet för åldrande flygplans strukturer

LOV

An approved LOV
(Limit Of Validity)

En godkänd giltighetsgräns

CPCP

A CPCP
(Corrosion Prevention and
Control Programme)

*Ett program för förebyggande och
kontroll av korrosion*

Baserad på

Easy Access Rules for Additional Airworthiness Specifications (Regulation (EU) 2015/640)

Published February 2021

INCORPORATED AMENDMENTS			
IMPLEMENTING RULES (IRs) (COMMISSION REGULATIONS)			
Incorporated Commission Regulation	Affected Part	Applicability date ¹	
Regulation (EU) 2015/640	Annex I (Part-26) Annex II (Part-ORO, point ORO.AOC.100)	14/5/2015	
Regulation (EU) 2019/133	Annex I (Part-26)	8/2/2019	
Regulation (EU) 2020/1159	Annex I (Part-26)	26/2/2021	
Regulation (EU) 2021/97	Annex I (Part 26)	26/2/2021	

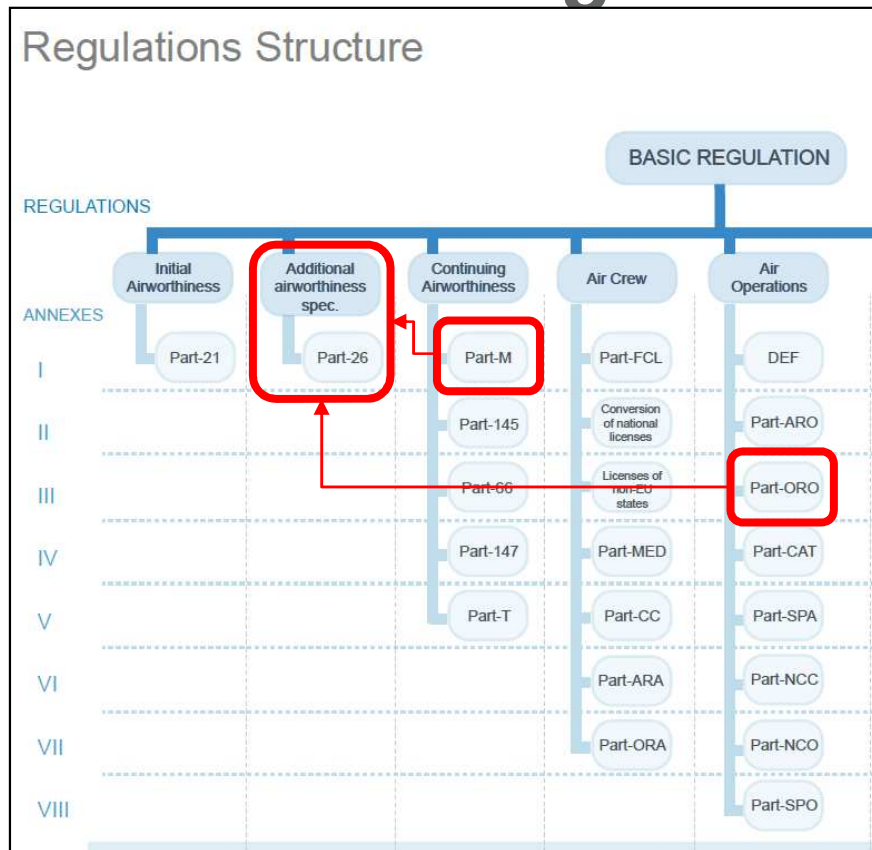
CERTIFICATION SPECIFICATIONS (CS)/GUIDANCE MATERIAL (GM) (ED DECISIONS)			
ED Decision	Affected book	Issue No	Applicability date
ED Decision 2015/013/R	Book 1 - Certification Specifications	Initial issue	9/5/2015
	Book 2 - Guidance Material		
ED Decision 2019/006/R	Book 1 - Certification Specifications	Issue 2	28/2/2019
	Book 2 - Guidance Material		
ED Decision 2020/023/R	Book 1 - Certification Specifications	Issue 3	26/2/2021
	Book 2 - Guidance Material		

Innehåll

- Intro
- Del 1 – Översikt
- Del 2 – Fördjupning (R&M on FCS & on DTBIP)
- Del 3 – AMC 20-20A
- Del 4 – Påverkan CAME & AMP
- Summering

Intro

Part-26 i regelstrukturen



ORO.AOC.100 Application for an air operator certificate

(c) Applicants shall demonstrate to the competent authority that:

- (1) they comply with all the requirements of annex IV to Regulation (EC) No 216/2008, this Annex (Part-ORO), Annex IV (Part-CAT) and Annex V (Part-SPA) to this Regulation and Annex I (**Part 26**) to Regulation (EU) 2015/640;

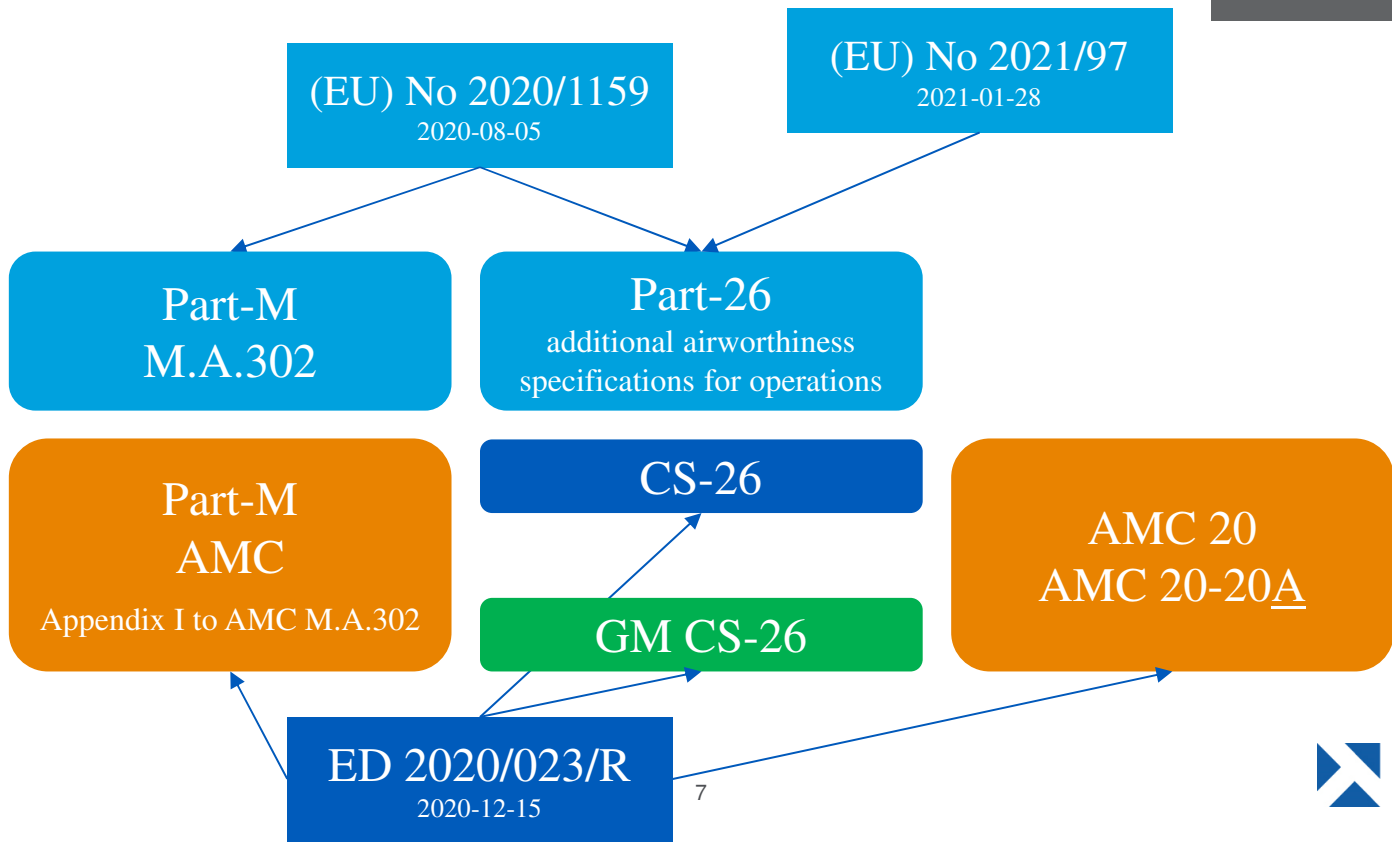
M.A.302 Aircraft maintenance programme

(d) The AMP shall demonstrate compliance with:

- (3) the applicable provisions of Annex I (**Part-26**) to Regulation (EU) 2015/640.

Vad har hänt?

Ändringar kommer även i Part-21 pga detta



AMC4 CAMO.A.305(g) Personnel requirements

ED Decision 2020/002/R

OTHER TRAININGS

- (a) The organisation should assess the need for particular training:
 - the **AMC 20-20 'Continuing Structural Integrity Programme...**

Översikt

- Operator **Part-M**
- CAMO

M.A.302
(d)(3) → Part-26

Appendix I to AMC M.A.302

- 1.1.12 - ...ageing aircraft system requirements...
- 1.1.13
 - (a) ...SIP...
 - (b) ...CPCP...
 - (c) Large aeroplanes ...26.370...
- 1.1.15 - ...LOV...

- Operator **Part-26**
- TCH, STCH, change and repair design approval holder

SUBPART B — LARGE AEROPLANES

26.370 Continuing airworthiness tasks and aircraft maintenance programme

- (a) ...turbine-powered large aeroplanes certified prepare AMP...
 - (a)(i) damage-tolerance-based inspection programme
 - (a)(ii) addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i)
 - (a)(iii) LOV
 - (a)(iv) CPCP

CS 26.370 Continuing airworthiness tasks and aircraft maintenance programme — Operators and organisations responsible for maintenance programmes for large aeroplanes under Part-M

- (a) – (k)

GM1 CS 26.370(a)(ii)

- Operator **Part-ORO**

ORO.AOC.100
(c)(1) → Del-26

AMC 20-20A

Continuing structural integrity programme

- Intro item 1-9
- Appendix 1-5
- **Appendix 3** to AMC 20-20A — Guidelines for establishing instructions for continued airworthiness of structural repairs and modifications
 - 6. OPERATOR TASKS — REPAIRS, MODIFICATIONS AND REPAIRS TO MODIFICATIONS IN SUPPORT OF COMPLIANCE WITH POINT 26.370 OF PART-26 AND CS 26.370
 - 6.1. Contents of the maintenance programme
 - Annex 1-6

Vad är ändrat i Part-M – AMP?

M.A.302 Aircraft maintenance programme

(d) The AMP shall demonstrate compliance with:

- (1) the instructions issued by the competent authority;
- (2) the instructions for continuing airworthiness:
 - (i) issued by the holders of the type certificate, restricted type certificate, supplemental type certificate, major repair design approval, ETSO authorisation or any other relevant approval issued under Annex I (Part-21) to Regulation (EU) No 748/2012;
 - (ii) included in the certification specifications referred to in point 21.A.90B or 21.A.431B of Annex I (Part-21) to Regulation (EU) No 748/2012, if applicable;

3) the applicable provisions of Annex I (Part-26) to Regulation (EU) 2015/640.

Appendix I to AMC M.A.302 and AMC M.B.301(b)

1.1.12. If applicable details of **ageing aircraft system requirements** together with any specified sampling programmes.

1.1.13. If applicable, details **of specific structural maintenance programmes** including, but not limited to:

- (a) (supplemental) structural inspection programmes **((S)SIPs** or (supplemental) structural inspection documents **(S)SIDs**) issued by the design approval holder.
- (b) Corrosion prevention and control programmes **(CPCPs)** taking into account the baseline CPCP issued by the design approval holder.
- (c) For large aeroplanes, maintenance data arising from **compliance with the ageing structure requirements** of point **26.370 of Annex I (Part-26)** to Regulation (EU) 2015/640.

1.1.15. If applicable a statement of the **limit of validity** in terms of total flight cycles/calendar date/flight hours for the structural programme in 1.1.13.

Nytt?

- Startade egentligen efter olyckorna 1954 med en Comet och en B707 1977.
- Initieras ytterligare efter "Aloha Airlines" 1988
- Startades av FAA och utkomsten blev följande:
 - (a) Select service bulletins describing modifications and inspections necessary to maintain structural integrity;
 - (b) Develop inspection and prevention programmes to address **corrosion**;
 - (c) Develop generic **structural maintenance programme** guidelines for ageing aeroplanes;
 - (d) Review and update the supplemental structural inspection documents (**SSIDs**) which describe inspection programmes to detect fatigue cracking; and
 - (e) Assess the **damage tolerance** of structural repairs.
- FAR Part 26 (2008)
 - CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR TRANSPORT CATEGORY AIRPLANES
- EU/EASA
 - AMC 20-20 kom 2007
 - Part-26.370 Continuing airworthiness tasks and aircraft maintenance programme, kom 2020



Vad ska införas i AMP?

26.370 Continuing airworthiness tasks and aircraft maintenance programme

(a)(i) an approved damage-tolerance-based inspection programme;

DTBIP

(a)(ii) a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

R&M on FCS
& on DTBIP

(a)(iii) an approved LOV;

LOV

(a)(iv) a CPCP;

CPCP



Definitioner

COMMISSION REGULATION (EU) No 2015/640 of 23 April 2015 on additional airworthiness specifications for a given type of operations and amending Regulation (EU) No 965/2012

Article 2 – (m)

“damage tolerance inspection” (DTI) means a documented inspection requirement or other maintenance action developed by holders of a type-certificate or restricted type-certificate as a result of a damage tolerance evaluation. A DTI includes the areas to be inspected, the inspection method, the inspection procedures (including the sequential inspection steps and acceptance and rejection criteria), the inspection threshold and any repetitive intervals associated with those inspections. DTIs may also specify maintenance actions such as replacement, repair or modification;

DTBIP

Article 2 –(o)

“fatigue-critical structure” (FCS) means a structure of an aeroplane that is susceptible to fatigue cracking that could lead to a catastrophic failure of the aeroplane.

R&M on FCS
& on DTBIP

Article 2 –(e)

“limit of validity” (LOV) means, in the context of the engineering data that supports the structural maintenance programme, a period of time, stated as a number of total accumulated flight cycles or flight hours or both, during which it is demonstrated that *widespread fatigue damage* will not occur in the aeroplane;

LOV

Article 2 –(g)

“corrosion prevention and control programme” (CPCP) means a document reflecting a systematic approach to prevent and to control corrosion in an aeroplane’s primary structure, consisting of basic corrosion tasks, including inspections, areas subject to those tasks, defined corrosion levels and compliance times (implementation thresholds and repeat intervals). A baseline CPCP is established by the type certificate holder, which can be adapted by operators to create a CPCP in their maintenance programme specific to their operations;

CPCP

TRANSPORT
STYRELSEN

COMMISSION REGULATION (EU) No 2015/640 of 23 April 2015 on additional airworthiness specifications for a given type of operations and amending Regulation (EU) No 965/2012

Article 2 –(h)

“widespread fatigue damage” (WFD) means a simultaneous presence of cracks at multiple locations in the structure of an aeroplane that are of such size and number that the structure will no longer meet the fail-safe strength or residual strength used for certification of that structure;

WFD

Article 2 –(j)

“fatigue-critical baseline structure” (FCBS) means the baseline structure of an aeroplane that is classified by the type certificate holder as a fatigue-critical structure;

FCBS

Article 2 –(k)

“fatigue-critical modified structure” (FCMS) means any fatigue critical structure of an aeroplane introduced or affected by a change to its type design and that is not already listed as part of the fatigue-critical baseline structure;

FCMS

Article 2 –(n)

“repair evaluation guideline” (REG) means a process established by the type certificate holder that guides operators to establish damage tolerance inspections for repairs that affect fatigue-critical structure to ensure the continued structural integrity of all relevant repairs;

REG

DTI - Damage Tolerance Inspection
FCS - Fatigue-Critical Structure
FCBS - Fatigue-Critical Baseline Structure
FCMS - Fatigue-Critical Modified Structure
REG - Repair Evaluation Guideline

Del 1 - Översikt

26.370 Continuing airworthiness tasks and aircraft maintenance programme

(a)(i-iv)

Regel vs CS

26.370

- (a)(i)
- (a)(ii)
- (a)(iii)
- (a)(iv)

CS 26.370

- (a)
- (b)
- (c)
- (d)
- (e)
- (f)
- (g)
- (h)
- (i)
- (j)
- (k)

DTBIP

R&M on FCS
& on DTBIP

LOV

CPCP

Förenklad sammanfattning



26 FEB 2021
26 FEB 2022
26 MAR 2022
26 AUG 2022
26 FEB 2024
26 FEB 2026

DTBIP
An approved Damage-Tolerance-Based Inspection Programme
Ett godkänt skadetoleransbaserat inspektionsprogram

R&M on FCS & on DTBIP
A means for addressing the adverse effects that Repairs and Modifications may have on Fatigue-Critical Structure and on inspections provided for in point (a)(i)
Ett förfarande för att hantera de negativa effekter som reparationerna och modifieringarna kan ha på utmattningskritisk struktur och på de inspektioner som anges i led a i

LOV
An approved LOV (Limit Of Validity)
En godkänd giltighetsgräns

CPCP
A CPCP (Corrosion Prevention and Control Programme)
Ett program för förebyggande och kontroll av korrosion

Införliva i AMP före 26 FEB 2024 eller...x

Som alternativ till nedanstående punkter. DTBIP

- Om en process finns för DTI's, för alla modifieringar & reparationer som berörs, och den varit implementerad och införlivad i AMP sedan flygplanet tagits i drift.

All tillgänglig godkänd DTI's för modifieringar som berörs

- Upprätta en "aspirantlista" senast 26 FEB 2022
- Efterfråga en FCMS list senast 26 MAR 2022
- En rapport inkluderat en slutgiltig lista senast 26 AUG 2022
- Granska DAHCD
- Införliva i AMP senast 26 FEB 2024

Importerad efter 26 FEB 2021?

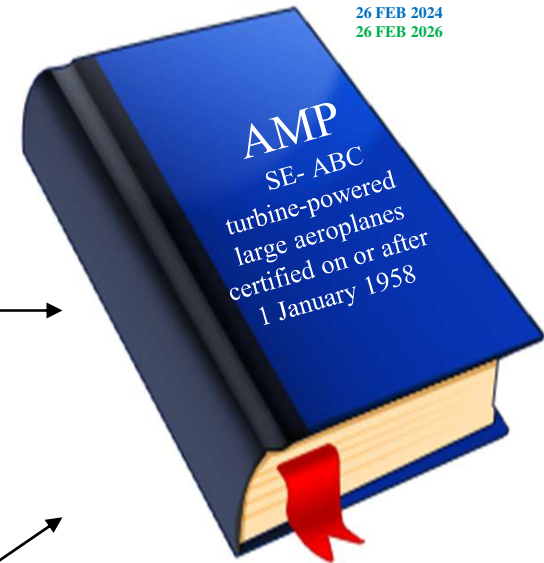
- Alla berörda major mod's införlivade i AMP före 26 FEB 2024

Reparationer och modifieringar som inte har DTI's enligt ovan

- Upprätta en plan med ett tidsschema för att erhålla DT-data
- Planen med tidsschemat ska införlivas i AMP senast 26 FEB 2024
- DT-data ska ha erhållits senast 26 FEB 2026

Införliva i AMP före 26 AUG 2021 eller...x

Införliva i AMP före 26 FEB 2024 eller...x



- Det var den förenklade sammanfattningen
- Nästa steg:
 - Vad står det i reglerna

26.370 Continuing airworthiness tasks and aircraft maintenance programme

(a) **Operators or owners of turbine-powered large aeroplanes** certified on or after 1 January 1958 shall ensure the continuing airworthiness of ageing aeroplanes structures **by preparing the aircraft maintenance programme** provided for in point M.A.302 of Annex I (Part-M) to Commission Regulation (EU) No 1321/20141 **that shall include:**

(i) for aeroplanes certified to carry 30 passengers or more, **or** with a payload capacity greater than 3 402 kg (7 500 lbs), **an approved damage-tolerance-based inspection programme;**

DTBIP

(ii) for aeroplanes operated in accordance with Annex IV (Part-CAT) to Regulation (EU) No 965/2012 and certified to carry 30 passengers or more **or** with a payload capacity greater than 3 402 kg (7 500 lbs), **a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);**

R&M on
FCS & on
DTBIP

(iii) for aeroplanes certified with a maximum take-off weight (MTOW) greater than 34 019 kg (75 000 lbs) **an approved LOV;**

LOV

(iv) **a CPCP;**

CPCP

26.370(a)(i) - an approved damage-tolerance-based inspection programme

(a) Operators or owners of turbine-powered large aeroplanes certified on or after 1 January 1958 shall ensure the continuing airworthiness of ageing aeroplanes structures by preparing the aircraft maintenance programme provided for in point M.A.302 of Annex I (Part-M) to Commission Regulation (EU) No 1321/20141 that shall include:

(i) for aeroplanes certified to carry 30 passengers or more, or with a payload capacity greater than 3 402 kg (7 500 lbs), **an approved damage-tolerance-based inspection programme;**

+

(b) The following **deadlines** shall apply to the obligation referred to in paragraph (a):

(i) **the aircraft maintenance programme shall be revised** to address the requirements of points **(a)(i), (a)(ii)** and **(a)(iv) before 26 February 2024** or before operating the aeroplane, whichever occurs later;

+

CS 26.370

(a) Compliance with point 26.370(a)(i) of Part-26 is demonstrated by incorporating into the aircraft maintenance programme (AMP) **the approved damage-tolerance-based inspection programme** developed by the design approval holders in accordance with CS 26.302.

26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

- (a) Operators or owners of turbine-powered large aeroplanes certified on or after 1 January 1958 shall ensure the continuing airworthiness of ageing aeroplanes structures by preparing the aircraft maintenance programme provided for in point M.A.302 of Annex I (Part-M) to Commission Regulation (EU) No 1321/20141 that shall include:
 - (ii) for aeroplanes operated in accordance with Annex IV (Part-CAT) to Regulation (EU) No 965/2012 and certified to carry 30 passengers or more **or** with a payload capacity greater than 3 402 kg (7 500 lbs), **a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);**

Alla reparationer & modifieringar som kan påverka FCS!

- (b) The following **deadlines** shall apply to the obligation referred to in paragraph (a):
 - (i) **the aircraft maintenance programme shall be revised** to address the requirements of points **(a)(i), (a)(ii)** and **(a)(iv) before 26 February 2024** **or** before operating the aeroplane, whichever occurs later;

+
CS 26.370 (b)-(i)
+
Appendix 3 to AMC 20-20A

Kan bli omfattande!
Kommer mer i Del 2.

26.370(a)(iii) - an approved LOV

(a) Operators or owners of turbine-powered large aeroplanes certified on or after 1 January 1958 shall ensure the continuing airworthiness of ageing aeroplanes structures by preparing the aircraft maintenance programme provided for in point M.A.302 of Annex I (Part-M) to Commission Regulation (EU) No 1321/20141 that shall include:

(iii) for aeroplanes certified with a maximum take-off weight (MTOW) greater than 34 019 kg (75 000 lbs) **an approved LOV**;

+

(b) The following **deadlines** shall apply to the obligation referred to in paragraph (a):

(ii) **the aircraft maintenance programme shall be revised** to address the requirements of point (a)(iii) **before 26 August 2021**, or 6 months after the publication of the LOV, or before operating the aeroplane, whichever occurs later;

+

CS 26.370

(j) Compliance with point 26.370(a)(iii) of Part-26 is demonstrated by incorporating into the maintenance programme **the most restrictive applicable limitation** of points (1), (2) or (3) below, in flight cycles or flight hours or both, as appropriate:

- (1) An EASA-approved LOV in accordance with Part-26, or
- (2) An EASA-approved limitation on the applicability of the ALS of the instructions for continued airworthiness at the aeroplane level, in accordance with JAR/CS 25.571 and 25.1529 (or equivalent), or
- (3) For aeroplanes listed in [Table 1](#) below, the limitation in Table 1, unless EASA has approved different limitations in accordance with (1) or (2).

26.370(a)(iv) – a CPCP

(a) Operators or owners of turbine-powered large aeroplanes certified on or after 1 January 1958 shall ensure the continuing airworthiness of ageing aeroplanes structures by preparing the aircraft maintenance programme provided for in point M.A.302 of Annex I (Part-M) to Commission Regulation (EU) No 1321/20141 that shall include:
(iv) a CPCP;

+

(b) The following **deadlines** shall apply to the obligation referred to in paragraph (a):

- (i) **the aircraft maintenance programme shall be revised** to address the requirements of points **(a)(i), (a)(ii)** and **(a)(iv) before 26 February 2024** or before operating the aeroplane, whichever occurs later;

+

CS 26.370

(k) Compliance with point 26.370(a)(iv) of Part-26 is demonstrated by **incorporating a CPCP** into the maintenance programme, **and** where a TC holder baseline CPCP produced in accordance with point 26.304 of Part-26 exists, it **is taken into account in the development of the operator's CPCP.**

26.304 Corrosion prevention and control programme

23.370 (c,d) "Undantag"

(c) For an aeroplane model first certified before 26 February 2021 and:

DTBIP

R&M on
FCS & on
DTBIP

CPCP

(i) that **does not operate anymore** after 26 February 2024 points **(a)(i), (a)(ii) and (a)(iv)** shall not apply;

(ii) that **does not operate anymore** after 26 August 2021 point **(a)(iii)** shall not apply;

LOV

(iii) with a **restricted TC** issued before 26 February 2021 in accordance with damage tolerance requirements, provided that it is not operated beyond 75 % of its design service goal and is primarily operated in support of the approval holders manufacturing operation points **(a)(i), (a)(ii) and (a)(iv)** shall not apply;

(d) For an aeroplane model with a **restricted type certificate** issued before 26 February 2021 and the primary purpose of which is firefighting, points **(a)(i) and (a)(ii)** shall not apply.

Del 2 – Fördjupning (R&M on FCS & on DTBIP)

26.370 Continuing airworthiness tasks and aircraft maintenance programme

(a)(ii)

- a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

CS 26.370 Continuing airworthiness tasks and aircraft maintenance programme — Operators and organisations responsible for maintenance programmes for large aeroplanes under Part-M

(b) Compliance with point 26.370(a)(ii) of Part-26 is demonstrated by complying with point **(i) of this CS** or by ensuring that the adverse effects that repairs and modifications may have on FCS are addressed by:

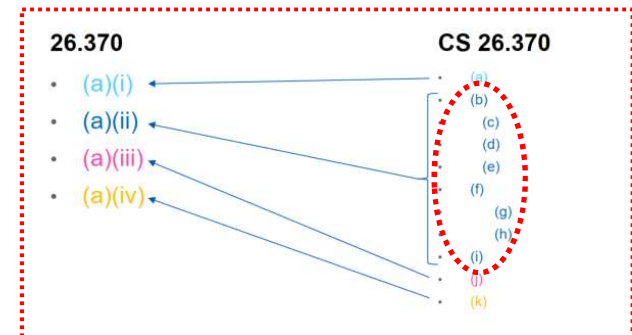
- (1) **incorporating into the AMP** all available approved DTIs for modifications by 26 February 2024 following compliance with points **(c) to (e)** of this CS;
- (2) complying with point **(f) of this CS**;
- (3) **incorporating in the AMP** the approved DTIs for all other repairs and modifications in accordance with the schedule adopted in a plan to be included, or referred to, in the AMP by 26 February 2024 in compliance with **points (g) and (h) of this CS**.

DTI - Damage Tolerance Inspection
FCS - Fatigue-Critical Structure

(b) → (i), (b)(1) → (c-e), (b)(2) → (f) & (b)(3) → (g-h)

- Punkten (b) refererar vidare till ett antal punkter.
- Därför tar vi punkt för punkt i kommande bilder i ett försök att sätta respektive punkt i rätt sammanhang.

26



26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

CS 26.370 Continuing airworthiness tasks and aircraft maintenance programme — Operators and organisations responsible for maintenance programmes for large aeroplanes under Part-M

(b) **Compliance with point 26.370(a)(ii) of Part-26 is demonstrated by complying with point (i) of this CS** ~~or by ensuring that the adverse effects that repairs and modifications may have on FCS are addressed by:~~

(i) As an alternative to compliance with points (c) to (h) above, compliance with point 26.370(a)(ii) of Part-26 is demonstrated **when a process exists and has been implemented to ensure that approved DTIs for all repairs and modifications** affecting the FCS of an aeroplane have been **incorporated into the AMP since the aeroplane first entered service.**

DTI - Damage Tolerance Inspection
FCS - Fatigue-Critical Structure

- (b)→(i) – ”*Införlivad i AMP*” sedan flygplanet tagits i drift
- Alternativ/möjlighet att uppfylla kravet.
 - Om en process finns och varit implementerad och införlivad i AMP sedan flygplanet tagits i drift.
 - För alla reparationer & modifieringar som berörs.

26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

CS 26.370 Continuing airworthiness tasks and aircraft maintenance programme — Operators and organisations responsible for maintenance programmes for large aeroplanes under Part-M

(b) Compliance with point 26.370(a)(ii) of Part-26 is demonstrated by complying with ~~point (i) of this CS~~ **or by ensuring that the adverse effects that repairs and modifications may have on FCS are addressed by:**

(1) incorporating into the AMP all available approved DTIs for modifications **by 26 February 2024** following compliance with points **(c) to (e)** of this CS;

(c) Review of aeroplane records and initial request for data

- (1) A **candidate list** of the **major modifications** in the aeroplane that affect or include FCS has been identified by means of a review of records, and listed in a report prepared by the continuing airworthiness maintenance organisation **by 26 February 2022**.
- (2) **Requests for FCMS lists and DTIs for modifications** identified in point (c)(1) above as supplemental type certificates (**STCs**) and **other changes**, approved prior to 1 September 2003, are submitted to the design approval holder **by 26 March 2022**, or an alternative source of approved DTIs is identified.
- (3) A **final list of the major modifications** in the aeroplane that affect or include FCS, taking into account the candidate list in point **(c)(1)** above, the available design approval holder lists of changes that affect the FCBS and the continuing airworthiness management organisation's own evaluation, is included in a report prepared by the continued airworthiness management organisation. The report should be completed **by 26 August 2022** or before operating the aeroplane in accordance with Part-CAT, whichever occurs later.

(b)(1)→(c) – "Förberedande åtgärder" - Sammanställ

- CAMO'n ska upprätta en "aspirant-lista" för major mod's som berörs.
- Efterfråga FCMS-list och DTIs för STC och andra större ändringar godkända före 2003.
- En slutlig lista och en rapport av CAMO'n inkluderat av major mod's som berörs med hänsyn till:
 - "aspirant-listan"
 - tillgängliga DAH-listor.
 - CAMO'ns utvärdering.

DTI - Damage Tolerance Inspection
FCS - Fatigue-Critical Structure
FCMS - Fatigue-Critical Modified Structure
FCBS - Fatigue-Critical Baseline Structure

26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

CS 26.370 Continuing airworthiness tasks and aircraft maintenance programme — Operators and organisations responsible for maintenance programmes for large aeroplanes under Part-M

(b) Compliance with point 26.370(a)(ii) of Part-26 is demonstrated by complying with ~~point (i) of this CS~~ **or by ensuring that the adverse effects that repairs and modifications may have on FCS are addressed by:**

(1) incorporating into the AMP all available approved DTIs for modifications by 26 February 2024 following compliance with points **(c) to (e)** of this CS;

(d) Operator **or** owner review of design approval holder compliance data

A review has been conducted **by the continuing airworthiness management organisation** of the applicable documents supplied by type certificate (TC) holders and STC holders in compliance with points 26.302, 26.306 to 26.309 and 26.332 to 26.334 of Part-26, which supports the identification of the available FCS and DTIs relevant to each aeroplane.

(b)(1)→(d) – ”Förberedande åtgärder” – Granska DAHCD

- En genomförd granskning av CAMO av tillämpliga data (DAHCD) från TCH & STCH som stödjer identifiering av tillgängliga FCS & DTI för varje flygplan.

26.302 Fatigue and damage tolerance evaluation
26.306 Fatigue critical baseline structure
26.309 Repair evaluation guidelines
26.332 Identification of changes affecting fatigue critical structure
26.334 Damage tolerance data for STCs and other changes and repairs to those changes approved before 1 September 2003

DTI - Damage Tolerance Inspection
FCS - Fatigue-Critical Structure

26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

CS 26.370 Continuing airworthiness tasks and aircraft maintenance programme — Operators and organisations responsible for maintenance programmes for large aeroplanes under Part-M

(b) Compliance with point 26.370(a)(ii) of Part-26 is demonstrated by complying with ~~point (i) of this CS~~ **or by ensuring that the adverse effects that repairs and modifications may have on FCS are addressed by:**

(1) incorporating into the AMP all available approved DTIs for modifications by 26 February 2024 following compliance with points (c) to (e) of this CS;

(e) DTIs that should be incorporated into the AMP **before 26 February 2024**.

For modifications with an approved DTI that is available and compliant with points 26.307 or 26.333 of Part 26, **all the applicable DTIs** should be incorporated into the AMP **by 26 February 2024** or before operating the aeroplane in accordance with Part-CAT, whichever occurs later.

(b)(1)→(e) – ”Införliva i AMP”

- DTI för tillgängliga mod's.

26.307 Damage tolerance data for existing changes to fatigue-critical structure

26.333 Damage tolerance data for STCs and repairs to those STCs approved on or after 1 September 2003

DTI - Damage Tolerance Inspection

FCS - Fatigue-Critical Structure

26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

CS 26.370 Continuing airworthiness tasks and aircraft maintenance programme — Operators and organisations responsible for maintenance programmes for large aeroplanes under Part-M

(b) Compliance with point 26.370(a)(ii) of Part-26 is demonstrated by complying with ~~point (i) of this CS~~ **or by ensuring that the adverse effects that repairs and modifications may have on FCS are addressed by:**

(2) complying with point **(f)** of this CS;

(f) **Modifications incorporated** in an aeroplane imported to the EU after **26 February 2021**

For all major modifications affecting FCS incorporated in an aeroplane that is imported to the EU after 26 February 2021, the applicable approved DTI should be obtained and incorporated into the AMP **by 26 February 2024** or before operating the aeroplane in accordance with Part-CAT, whichever occurs later.

(b)(2)→(f) – ”Införliva i AMP”

- För mod's införda på luftfartyg importerade efter 26 feb 2021.
- DTI för alla major mod's som berörs.

DTI - Damage Tolerance Inspection
FCS - Fatigue-Critical Structure



26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

CS 26.370 Continuing airworthiness tasks and aircraft maintenance programme — Operators and organisations responsible for maintenance programmes for large aeroplanes under Part-M

(b) Compliance with point 26.370(a)(ii) of Part-26 is demonstrated by complying with ~~point (i) of this CS~~ **or by ensuring that the adverse effects that repairs and modifications may have on FCS are addressed by:**

(3) incorporating in the AMP the approved DTIs **for all other repairs and modifications** in accordance with the schedule adopted in a plan to be included, or referred to, in the AMP by 26 February 2024 in compliance with **points (g) and (h) of this CS.**

(g) Means to address the adverse effect of **repairs and modifications** that have not had DTIs incorporated into the AMP according to points (e) and (f) of this CS

(1) A plan has been established by the continuing airworthiness management organisation to obtain and implement all the applicable DT data for existing major modifications and reinforcing repairs affecting the FCS.

(2) The plan has been incorporated, in full or by reference, into the AMP for approval in accordance with point M.A.302 of Annex I (Part-M) to Regulation (EU) No 1321/2014.

(3) For each modification identified in the list contained in the report of **point (c)(3)** above **and** that is subject to this point, the plan shows that:

(i) requests for DT data have been made to the DAH that has to comply with point **26.334** of Part-26, **and** an agreement for obtaining approved DTIs is reached, **or**

(ii) an agreement is established with a third party to provide approved DTIs,

in order to support a schedule for incorporation of the DTIs into the AMP in accordance with **point (h).**

(4) In case a modification is identified after establishing the list of modifications according to **point (c)(3)** above, e.g. during an aeroplane survey, add that modification to the list.

(b)(3) → (g)(1-4) – "Förberedande åtgärder" - En plan

- CAMO'n ska etablera en plan för att erhålla DT data.
- Planen ska finnas i AMP (eller refereras till).
- Efterfråga DT-data.
- Ett avtal med 3:e part om så behövs, för att kunna upprätta ett tidsschema
- Addera i den slutgiltiga listan om ytterligare mod's upptäcks som berörs.

26.334 Damage tolerance data for STCs and other changes and repairs to those changes approved before 1 September 2003

DTI - Damage Tolerance Inspection
FCS - Fatigue-Critical Structure

26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

CS 26.370 Continuing airworthiness tasks and aircraft maintenance programme — Operators and organisations responsible for maintenance programmes for large aeroplanes under Part-M

(b) Compliance with point 26.370(a)(ii) of Part-26 is demonstrated by complying with ~~point (i) of this CS~~ **or by ensuring that the adverse effects that repairs and modifications may have on FCS are addressed by:**

(3) incorporating in the AMP the approved DTIs **for all other repairs and modifications** in accordance with the schedule adopted in a plan to be included, or referred to, in the AMP by 26 February 2024 in compliance with **points (g) and (h) of this CS.**

(g) Means to address the adverse effect of **repairs and modifications** that have not had DTIs incorporated into the AMP according to points (e) and (f) of this CS

(5) The plan ensures that reinforcing repairs to the FCS will be identified and assessed for DT by specifying processes for:

(i) conducting surveys and records reviews of the affected aeroplanes as necessary to ensure the identification and documentation of all the existing reinforcing repairs that affect the FCS; and

(ii) obtaining DT data for reinforcing repairs identified in [point \(g\)\(5\)\(i\)](#) above.

The plan does not need to include an aeroplane survey when the aeroplane certification basis for the complete structure of the aeroplane is CS 25.571. Reinforcing repairs are described in [point 3.13.3 of Appendix 3 to AMC 20-20A](#).

(6) This plan also includes schedules for:

(i) conducting aeroplane surveys, obtaining DT data for repairs **and** incorporating all approved DTIs into the AMP **considering the applicable REGs**. Additional means of compliance may be found in [Appendix 3 to AMC 20-20A](#);

(ii) obtaining DT data for all major modifications identified either in the plan **or** added to the list of modifications according to [point \(g\)\(4\)](#) above, **and** incorporating the applicable approved DTIs in the AMP in accordance with [point \(h\)](#) below.

Forts (b) →(3)(g)(5-6) – ”Förberedande åtgärder” - En plan

- Planen ska säkerställa... (förstärkande reparationer som berörs)... (Surveys)... (granskning av dokumentation)... (erhålla DT data)...
- Planen ska också omfatta tidsschema för
 - Reparationer ... (Surveys)... (erhålla DT data)... (tillämpliga REG)... (införlivande i AMP)...
 - Major mod' s... (erhålla DT data)... (införlivande i AMP)...

DTI - Damage Tolerance Inspection

FCS - Fatigue-Critical Structure

REG - Repair Evaluation Guideline

26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

CS 26.370 Continuing airworthiness tasks and aircraft maintenance programme — Operators and organisations responsible for maintenance programmes for large aeroplanes under Part-M

- (b) Compliance with point 26.370(a)(ii) of Part-26 is demonstrated by complying with ~~point (i) of this CS~~ **or by ensuring that the adverse effects that repairs and modifications may have on FCS are addressed by:**
- (3) incorporating in the AMP the approved DTIs **for all other repairs and modifications** in accordance with the schedule adopted in a plan to be included, or referred to, in the AMP **by 26 February 2024** in compliance with **points (g) and (h)** of this CS.

(h) Schedule for obtaining DT data for certain modifications

For **major modifications** subject to point (g), a schedule is established for obtaining DT data such that:

- (1) for **major modifications** identified in the plan in accordance with point (g)(3), all applicable approved DTIs will be incorporated into the AMP **before 26 February 2026**; and
- (2) for **major modifications** identified according to point (g)(4), the applicable approved DTIs will be incorporated into the AMP **by 26 February 2026** or within 12 months of the identification of that modification, or before operating the aircraft in accordance with Part-CAT, whichever occurs later.

(b)(3) →(h) – ”Införliva i AMP” före 2026

- Ett tidsschema för att erhålla DT data för särskilda major mod's som berörs.

26.370(a)(ii) - a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

GM1 26.370(a)(ii) Means to address the adverse effects of repairs and modifications

Unless an operator or owner complies with CS 26.370(i) and in order to comply in a timely manner with point 26.370(a)(ii) of Part-26, it is necessary to accomplish specific actions beforehand, to identify changes affecting the FCS, request the DT data, and review the design approval holder documentation, in accordance with CS 26.370 (c) and (d).

DTIs that should be available and incorporated into the AMP before 26 February 2024 are those DTIs that have been developed by the TC holder and STC holders in compliance with points 26.302, 26.307 and 26.333 of Part-26. The timescales for those requirements should mean that the DT data is submitted to EASA for approval by 26 February 2023, and following approval, the design approval holder has to make the DTIs available to operators, allowing them to incorporate the data prior to 26 February 2024. The operator will need to identify and contact the design approval holder for the applicable modification and request DT data for the modification. If the design approval holder for a modification installed on an operator's aeroplane no longer exists or does not make the DTI available for some reason that is out of the operator's control, the DTI may be obtained and incorporated according to the schedules outlined in CS 26.370(h). In these cases, the plan used in accordance with CS 26.370(g) should show the course of action for that modification, including the agreements by which the DTIs will be obtained.

For modifications approved after 1 September 2003, if the operator decides not to obtain the DTI that is available from the design approval holder of the modification and elects to contract a third party, the timescale of CS 26.370(e) for the incorporation of the approved DTI into the AMP remains unchanged.

For the DTIs of modifications where the TC holder is not the approval holder and the approval was issued prior to 1 September 2003, the operator will have to make a request for that data to the approval holder, who would then have to comply with point 26.334 of Part-26 and make the DTIs available, or the operator may arrange with a third party to perform the DTE and provide approved DTIs. The DT data should be obtained, and the DTIs incorporated into the AMP according to the schedules outlined in CS 26.370(h), and this should be part of the plan used in accordance with CS 26.370(g).

When a request for DT data is made to the design approval holder that has to comply with point 26.334 of Part-26, it should be in written form, the date of the request should be recorded, and a record kept of the subsequent communications with the DAH, the agreements reached and the actions taken. An example of such records would be a copy of the contract to provide the DT data.

For each modification identified in the review of records as per CS 26.370(c), when the DTI for a modification is not already incorporated into the AMP, the operator should ensure that it will be obtained. This means that the design approval holders of all modifications for which the operator has identified a potential need for DTIs should be approached in a timely manner.

For repairs, acceptable procedures for conducting aeroplane surveys, and schedules for obtaining, incorporating and implementing DTIs may be found in the applicable REGs made available by the TC holder as required by point 26.309 of Part-26 and described in Appendix 3 to AMC 20-20A.

Del 3 - AMC 20-20A

Appendix 3 to AMC 20-20A – Guidelines for establishing instructions for continued airworthiness of structural repairs and Modifications

- 6. OPERATOR TASKS — REPAIRS, MODIFICATIONS AND REPAIRS TO MODIFICATIONS IN SUPPORT OF COMPLIANCE WITH POINT 26.370 OF PART-26 AND CS 26.370

Innehåll AMC 20-20A

AMC 20-20A	
AMC 20-20A Continuing structural integrity programme	
1. PURPOSE	6. DAMAGE-TOLERANCE-BASED INSPECTION PROGRAMME
2. RELATED REGULATIONS AND DOCUMENTS	7. DAMAGE TOLERANCE EVALUATION OF REPAIRS AND MODIFICATIONS
3. BACKGROUND	8. LIMIT OF VALIDITY OF THE MAINTENANCE PROGRAMME AND WIDESPREAD FATIGUE DAMAGE EVALUATION
4. DEFINITIONS AND ACRONYMS	9. CORROSION PREVENTION AND CONTROL PROGRAMME
5. CONTINUING STRUCTURAL INTEGRITY PROGRAMME AND WAY OF WORKING	

Appendix 1 to AMC 20-20A — Guidelines for the development of a supplementary structural inspection programme

Appendix 2 to AMC 20-20A — Guidelines for the development of a programme to preclude the occurrence of widespread fatigue damage

Annex 1 to Appendix 2 to AMC 20-20A — Full-scale fatigue test evidence

Annex 2 to Appendix 2 to AMC 20-20A — Example of how to establish an LOV

Appendix 3 to AMC 20-20A — Guidelines for establishing instructions for continued airworthiness of structural repairs and modifications

6. OPERATOR TASKS — REPAIRS, MODIFICATIONS AND REPAIRS TO MODIFICATIONS IN SUPPORT OF COMPLIANCE WITH POINT 26.370 OF PART-26 AND CS 26.370

6.1. Contents of the maintenance programme

6.1.1. Implementation plan for repairs

6.1.2. Implementation plan and actions for modifications

6.1.3. Implementation of DTI

Annex 1 to Appendix 3 to AMC 20-20 — Approval process for new repairs

Annex 2 to Appendix 3 to AMC 20-20A — Assessment of existing repairs

Annex 3 to Appendix 3 to AMC 20-20A — Repairs and modifications to removable structural components

Annex 4 to Appendix 3 to AMC 20-20A — Service bulletin review process

Annex 5 to Appendix 3 to AMC 20-20A — List of major changes and STSs that may adversely affect fatigue-critical structure

Annex 6 to Appendix 3 to AMC 20-20A — Background to the need for damage-tolerance-based inspection programmes for repairs

Appendix 4 to AMC 20-20A — Guidelines for the development of a corrosion prevention control programme

4. DEVELOPMENT OF OPERATORS PROGRAMME

Appendix 5 to AMC 20-20A — Guidelines for ensuring the validity of continuing structural integrity programmes

Appendix 3 to AMC 20-20A —
Guidelines for establishing instructions for continued airworthiness of structural repairs and modifications

6. **OPERATOR TASKS** — REPAIRS, MODIFICATIONS AND REPAIRS TO
MODIFICATIONS IN SUPPORT OF COMPLIANCE WITH POINT 26.370 OF
PART-26 AND CS 26.370

6.1. Contents of the maintenance programme

6.1.1. Implementation plan for **repairs**

6.1.2. Implementation plan *and actions* for **modifications**

6.1.3. Implementation of **DTI**

7. ROLE OF THE **COMPETENT AUTHORITY**

The competent authority's role is **to verify that the AMP is in compliance with point 26.370 of Part-26** and ensure that their aircraft continuing airworthiness monitoring survey programme takes into account the risks associated with potential non-compliance of operators' or owners' AMPs with the requirements of point 26.370 of Part-26. (Ref. Part-M requirements for the Competent Authority (M.B.301 and 303)).

Del 4 - Påverkan CAME & AMP

Att tänka på för CAME & AMP

- CAME 1.2 AMP – development amendment and approval
- CAME 1.7 Repairs and modifications
- CAME 2.9 Control of personnel competency
 - Att Part-26 & AMC 20-20 'Continuing Structural Integrity Programme kunskap krävs för:
 - CAM/NPCA, SM, CMM
 - AMP-personal, auditör, ARS
 - Att ”*Competency assessment*” omfattar Part-26 & AMC 20-20 kunskaper
- Bevakning av ändringar av Part-26/CS-26/GM & AMC 20-20A som påverkar

CAME & AMP

AMC4 CAMO.A.305(g) Personnel requirements

ED Decision 2020/002/R

OTHER TRAININGS

- (a) The organisation should assess the need for particular training; for example, with regard to the competency standards established in AMC 20-22 'Electrical Wiring Interconnection System' (EWIS), the **AMC 20-20 'Continuing Structural Integrity Programme'** or 'Critical Design Configuration Control' (CDCCL).

Summering

Summering

- Intro
- Del 1 – Översikt
- Del 2 – Fördjupning (R&M on FCS & on DTBIP)
- Del 3 – AMC 20-20A
- Del 4 – Påverkan CAME & AMP
- [Sammanfattning](#)
- [Guide/Vägledning](#)
- EASA FAQ:
 - [Additional Airworthiness specifications | EASA \(europa.eu\)](#)

Förenklad sammanfattning



26 FEB 2021
26 FEB 2022
26 MAR 2022
26 AUG 2022
26 FEB 2024
26 FEB 2026

DTBIP
An approved Damage-Tolerance-Based Inspection Programme
Ett godkänt skadetoleransbaserat inspektionsprogram

R&M on FCS & on DTBIP
A means for addressing the adverse effects that Repairs and Modifications may have on Fatigue-Critical Structure and on inspections provided for in point (a)(i)
Ett förfarande för att hantera de negativa effekter som reparationerna och modifieringarna kan ha på utmattningskritisk struktur och på de inspektioner som anges i led a i

LOV
An approved LOV (Limit Of Validity)
En godkänd giltighetsgräns

CPCP
A CPCP (Corrosion Prevention and Control Programme)
Ett program för förebyggande och kontroll av korrosion

Införliva i AMP före 26 FEB 2024 eller...x

Som alternativ till nedanstående punkter. DTBIP

- Om en process finns för DTI's, för alla modifieringar & reparationer som berörs, och den varit implementerad och införlivad i AMP sedan flygplanet tagits i drift.

All tillgänglig godkänd DTI's för modifieringar som berörs

- Upprätta en "aspirantlista" senast 26 FEB 2022
- Efterfråga en FCMS list senast 26 MAR 2022
- En rapport inkluderat en slutgiltig lista senast 26 AUG 2022
- Granska DAHCD
- Införliva i AMP senast 26 FEB 2024

Importerad efter 26 FEB 2021?

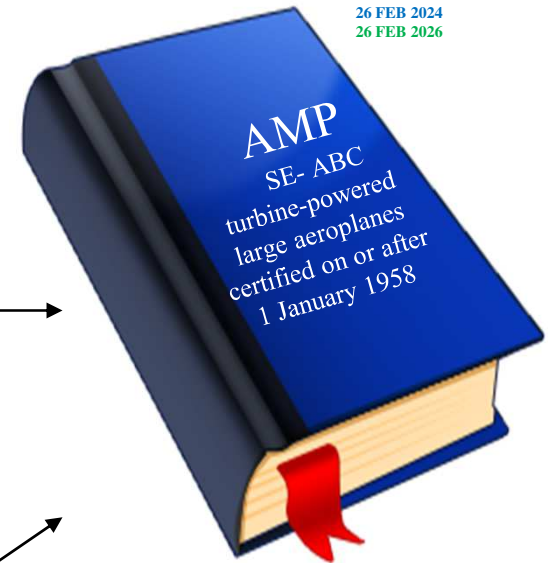
- Alla berörda major mod's införlivade i AMP före 26 FEB 2024

Reparationer och modifieringar som inte har DTI's enligt ovan

- Upprätta en plan med ett tidsschema för att erhålla DT-data
- Planen med tidsschemat ska införlivas i AMP senast 26 FEB 2024
- DT-data ska ha erhållits senast 26 FEB 2026

Införliva i AMP före 26 AUG 2021 eller...x

Införliva i AMP före 26 FEB 2024 eller...x



DTBIP

An approved Damage-Tolerance-Based
Inspection Programme

*Ett godkänt skadetoleransbaserat
inspektionsprogram*

R&M on FCS & on DTBIP

A means for addressing the adverse effects that
Repairs and Modifications may have on Fatigue-
Critical Structure and on inspections provided
for in point (a)(i)

*Ett förfarande för att hantera de negativa effekter
som reparationerna och modifieringarna kan ha på
utmattningskritisk struktur och på de inspektioner
som anges i led a i*

Continuing structural integrity programme for ageing aeroplanes structures

Program för fortsatt strukturintegritet för åldrande flygplans strukturer

LOV

An approved LOV
(Limit Of Validity)

En godkänd giltighetsgräns

CPCP

A CPCP
(Corrosion Prevention and
Control Programme)

*Ett program för förebyggande och
kontroll av korrosion*

Part-26´s påverkan på AMP

- 26.370 Continuing airworthiness tasks and aircraft maintenance programme
- AMC 20-20A Continuing structural integrity programme
- M.A.302 Aircraft maintenance programme

Är ”alla” klara?

- TCH, RTCH, STCH

Vem berörs av vad

- Detta började gälla även för TCH, RTCH, STCH **2021-02-26**.
- De ska etablera en plan för 26.302 till 26.309 (26.332 till 26.334)
- Planen ska skickas till EASA före 2021-05-27.

TCH & RTCH

26.300 Continuing structural integrity programme for ageing aeroplanes structures
— general requirements

26.301 Compliance Plan for (R)TC holders:

- 26.302 Fatigue and damage tolerance evaluation
- 26.303 Limit of Validity
- 26.304 Corrosion prevention and control programme
- 26.305 Validity of the continuing structural integrity programme
- 26.306 Fatigue critical baseline structure
- 26.307 Damage tolerance data for existing changes to fatigue-critical structure
- 26.308 Damage tolerance data for existing repairs to fatigue-critical structure
- 26.309 Repair evaluation guidelines

STCH

26.330 Damage tolerance data for existing supplemental type-certificates (STCs), other existing major changes and existing repairs affecting those changes or STCs

26.331 Compliance Plan for STC holders:

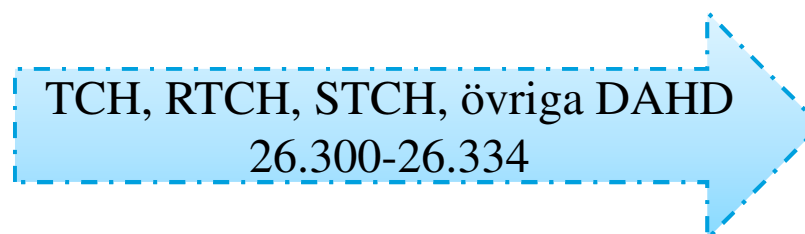
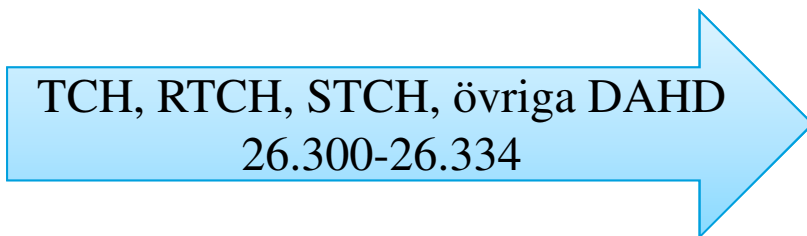
- 26.332 Identification of changes affecting fatigue critical structure
- 26.333 Damage tolerance data for STCs and repairs to those STCs approved on or after 1 September 2003
- 26.334 Damage tolerance data for STCs and other changes and repairs to those changes approved before 1 September 2003

Operator/Owner

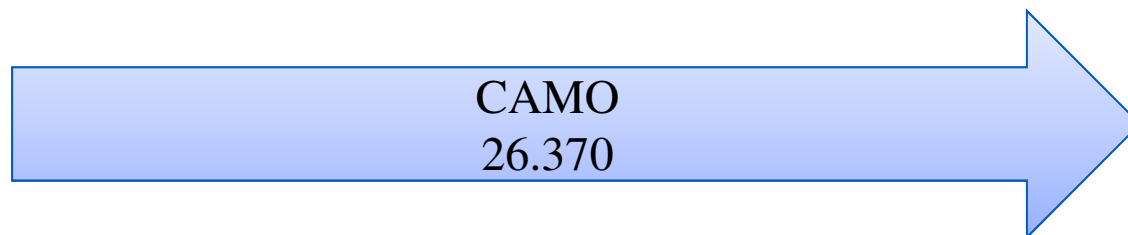
26.370 Continuing airworthiness tasks
and aircraft maintenance programme

Tider

~~2021-02-26~~ 2021-05-27 2021-08-25 2022-02-26 2022-08-26 2023-02-26 2025-02-26 **2026-02-26**



~~2021-02-26~~ 2022-02-26 2022-03-26 2022-08-26 **2024-02-26** **2026-02-26**



Tillägg

Sannolikt finns följande redan för:

- **LOV** i **ALS** 
- **CPCP** i **MRBR** 
- **(S)SIP/(S)SID** i **ALS** (AD) 
men kan eventuellt behöva revideras i AMP.

Hanteringen av **inspektioner för modifieringar och reparationer som kan påverka utmattningskritisk struktur** och inspektionerna i **(S)SIP/(S)SID** *kan bli mer omfattande* beroende på:

- luftfartygets certifieringsbas
- luftfartygets
 - ålder
 - modifieringar
 - reparationer

R&M on FCS
& on DTBIP