

# Antonio Ivaldo M Andrade



SENAI

Técnico em Mecânica Geral – 1993



Engenheiro Mecânico-Aeronáutico – 2001



Elemento Credenciado em Segurança de Voo – 2004



Profissional Credenciado Aeronavegabilidade – 2008



MBA em Gestão Empresarial – 2009



Pós-graduado em Segurança na Aviação e Aeronavegabilidade Continuada – 2010

# Aprovação de Aeronavegabilidade para Exportação

Form 8130-3

1. Approving National Aviation Authority/Country: FAA/United States		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG				3. Form Tracking Number:	
4. Organization Name and Address:						5. Work Order/Contract/Invoice Number:	
6. Item:	7. Description:	8. Part Number:	9. Eligibility: *	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:	
13. Remarks:							
14. Certifies the items identified above were manufactured in conformity to:				19. <input type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 13			
<input type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 13.				Certifies that unless otherwise specified in Block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.			
15. Authorized Signature:		16. Approval/Authorization No.:		20. Authorized Signature:		21. Approval/Certificate No.:	
17. Name (Typed or Printed):		18. Date (m/d/y):		22. Name (Typed or Printed):		23. Date (m/d/y):	
<b>User/Installer Responsibilities</b>							
<p>It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.</p> <p>Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1.</p> <p>Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.</p>							

# EUA



# Brasil



1. Approving National Aviation Authority Country: FAA/Other State		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG		3. Form Tracking Number:	
4. Organization Name and Address:				5. Work Order/Contract/Invoice Number:	
6. Item:	7. Description	8. Part Number:	9. Eligibility *	10. Quantity:	11. Serial/Block Number:
					12. Status/Work:
13. Remarks:					
14. Certifies the items identified above were manufactured in conformance to: <input type="checkbox"/> Approved design data and are in a condition for safe operation. New approved design data specified in Block 15.				15. <input type="checkbox"/> CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 13 Certifies that return alternative specified in Block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.	
16. Authorized Signatures:		17. Approval/Authorization No.:		18. Authorized Signatures:	
19. Name (Typed or Printed):		20. Date (month):		21. Approved Certificate No.:	
22. Name (Typed or Printed):		23. Date (month):		24. Date (month):	
<b>User/Installer Responsibilities</b>					
It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensure that his/her airworthiness authority accepts part/component/assemblies from the airworthiness authority of the country specified in Block 1. Statements in Blocks 14 and 15 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification based in accordance with the national regulations to the user/installer before the aircraft may be flown.					
FAA Form 8130-3 (06-01) *Installer must cross-check eligibility with applicable technical data. NNN 005-00-011-0005					

# RBAC 21 – CERTIFICAÇÃO DE PRODUTO AERONÁUTICO

## 21.502 Aprovação de materiais, peças e aparelhos

(a) Considera-se que uma peça, material ou aparelho fabricado no exterior satisfaz os requisitos de aprovação dos RBAC se o país do fabricante emitir uma **aprovação de aeronavegabilidade para exportação**, certificando que cada material, peça ou aparelho está em conformidade com tais requisitos, a menos que a ANAC considere, com base nos dados técnicos apresentados de acordo com o parágrafo (b) desta seção, que o material, peça ou aparelho não é consistente com os objetivos dos RBAC. Adicionalmente, considera-se que uma peça, material ou aparelho fabricado no exterior satisfaz os requisitos de aprovação dos RBAC se o país exportador mantiver um acordo com o Brasil para aceitação de importação e exportação de tais produtos; ou, caso não exista o referido acordo, se for importado da maneira estabelecida pela ANAC.

# INSTRUÇÕES SUPLEMENTARES

IS 43-001A – Elegibilidade, Qualidade e Identificação de  
Peças de Reposição Aeronáuticas

5.3

IS 21-010A – Procedimentos para a aprovação de  
produtos aeronáuticos civis importados

5.2.2, 5.7.5, 5.8.1 & 5.10

## 8130.21G - Procedures for Completion & Use Authorized Release Certificate, FAA Form 8130-3, Approval Tag

2-3. Domestic Airworthiness Approval of New Products (Aircraft Engines and Propellers).

a. FAA Form 8130-3 can be issued for domestic shipments to identify the airworthiness approval status of new products produced under the provisions of 14 CFR part 21. **The use of FAA Form 8130-3 for this purpose is optional**, but the FAA recommends its use. When used for an airworthiness approval for new products (engines or propellers), the following statement must be entered: “AIRWORTHINESS APPROVAL — ENGINE [or PROPELLER].” (Refer to figure 2-2 of this order.)



## Proposta Exigência do Form

Aeronaves, Motores & Hélices

→ manter

Componentes Usados

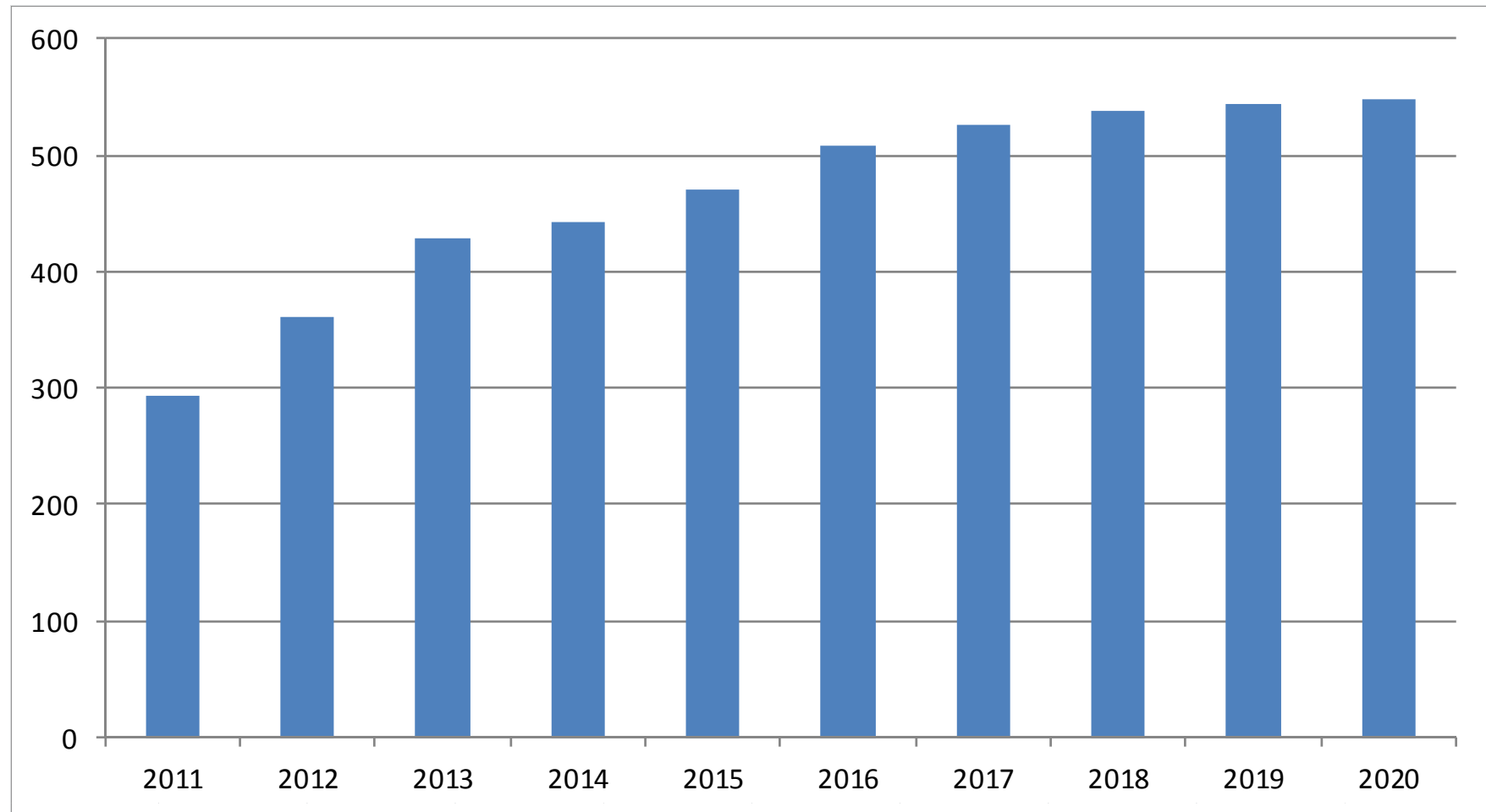
→ manter

Componentes novos

→ Aceitar Certificado de Conformidade emitido pelo fabricante.

# Tempo de Experiência para emissão da Habilitação Técnica pela ANAC

# Necessidade de MMA até 2020



2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
294	362	429	442	471	508	526	537	543	548

# Programa de Formação Técnica

- Alunos de Escola Técnica (Mecânica, Mecatrônica ou Eletrônica)
- A Lider paga o Curso (Básico + Célula) em Escola de Aviação
- Contratados como Estagiários durante o Curso
- Quem passa na prova da ANAC é contratado como Auxiliar de Manutenção

EUA

18 meses



Brasil

36 meses



# Proposta

- Tempo de Experiência requerido passe de 36 para 18 meses.
- Empresas que possuem um Programa de Formação Técnica possam ser 12 meses.
  - Legislação Aeronáutica
  - Metrologia
  - On the Job Training
  - Fatores Humanos na Manutenção

Documentos em meio eletrônico

# Sustentabilidade





# Cenário Atual



# Sistemas Integrados



# Avanços

- Diretrizes de aeronavegabilidade online
- IAM online
- Processos online

# EUA



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

# Advisory Circular

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**Subject: ACCEPTANCE AND USE OF  
ELECTRONIC SIGNATURES,  
ELECTRONIC RECORDKEEPING  
SYSTEMS, AND ELECTRONIC MANUALS**

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**Date: 10/29/02**

**Initiated by: AFS-300**

**AC No: 120-78**

**Change:**

# Proposta

- Criar via Instrução Suplementar um método aceitável para utilização em meio Eletrônico de:
  - Registros de Manutenção
  - Rastreabilidade de Componentes

Obrigado