



# FRMS Regulation Brazil

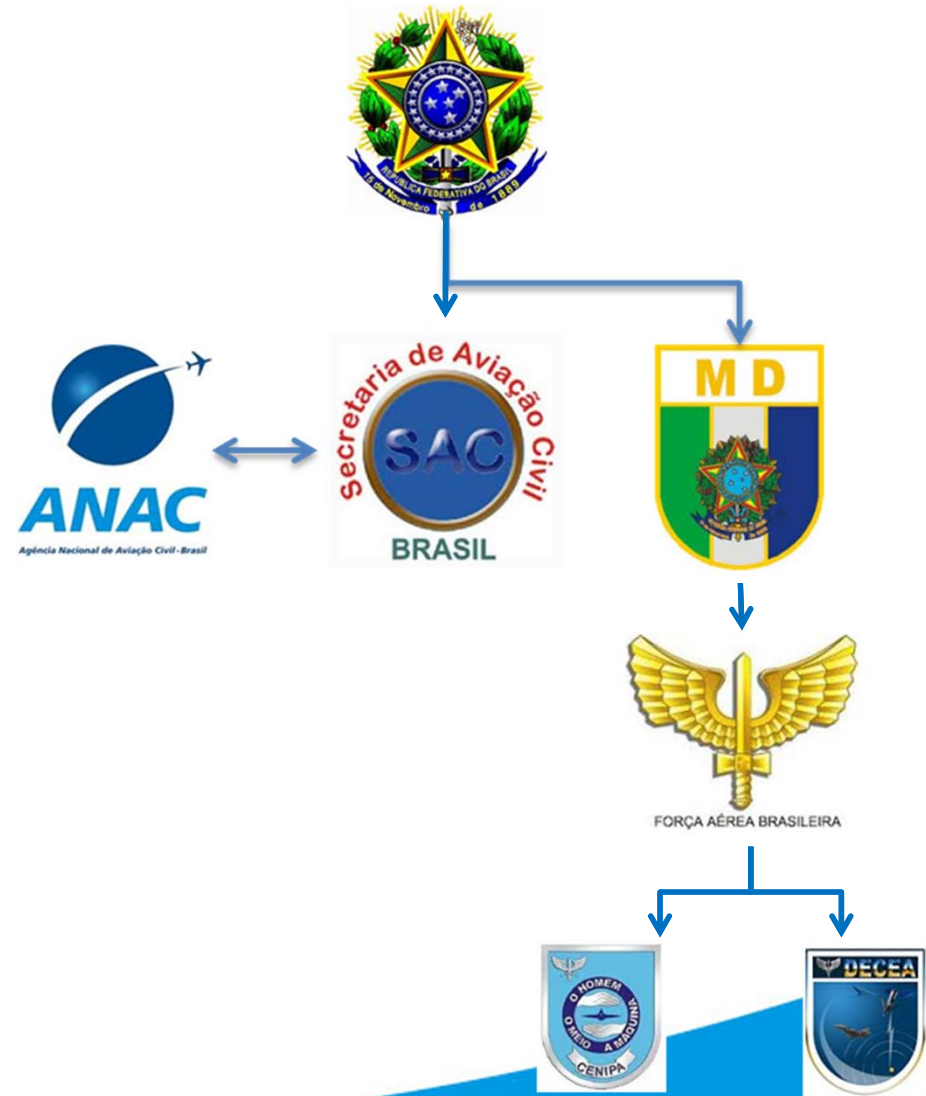
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CAA of Brazil

Lima, June 26<sup>th</sup> 2012



# Brazilian Civil Aviation: An overview





## Brazilian Civil Aviation: An overview

- Statistics: Number of aircrafts as of may 2012

Private	8.706
Instruction	1.563
On-demand	1.558
Scheduled	697
Experimental	4.589
Other	1.536
<b>TOTAL</b>	<b>18.649</b>



# Brazilian Civil Aviation: An overview

- **Statistics: Personnel** as of may 2012

Private pilot – airplane	5.371	6.154	
Private pilot – helicop.	783		
Commercial pilot – airplane	7.060		15.395
Commercial pilot – helicop.	1527		
Airline pilot – airplane	5.890		
Airline pilot – helicop.	918		
Flight attendant	11.790		11.790
Flight engineer	243		243
Dispatcher	404		404
<b>TOTAL (except private)</b>			<b>27.832</b>



## Brazil's current FTL

- Federal Law (7.183/1984)
  - Flight and cabin crew
- Duty time:
  - Unaugmented: **11h** (at night: 10h)
  - Augmented: 14h – 20h
- Maximum for all:
  - **60 h/week**
  - **176 h/month**

## Brazil's current FTL

- Federal Law (7.183/1984): flight time

Crew type	Flight time	Number of landings
Minimum and basic (unaugmented)	9h30min	5 / 6
Augmented (one pilot +)	12	6 / 7
Augmented (two pilots +)	15	4 / 5
Helicopters	8	-

## Brazil's current FTL

- Federal Law (7.183/1984): flight time

Flight time/ aircraft	Monthly	Quarterly	Yearly
Piston	100	270	1000
Turboprop	100	255	935
<b>Jet</b>	<b>85</b>	<b>230</b>	<b>850</b>
Helicop.	90	260	960



## Brazil's current FTL

- Rest period:
  - **12 h** → after  $\leq 12$ h time on duty
  - **16 h** → after 12h-15h time on duty;
  - **24 h** → after  $\geq 15$ h time on duty.
  
- Extended rest period: **24 h** consec.
  - **8 times** in a month
  - 2 consec. times - must include saturday or sunday



## Brazilian FTL: A small comparison

<i>Jets only</i>	Brazil	FAA (current)	EASA (proposal)
FDP	11 / duty 176 / month (30d)	9 -14 / duty 60 / 168 (7d) 190 / 672 (28d)	9 – 13 / duty 110 / 14d 190 / 28d
FT – duty	9h30min	8 - 9	NI
FT – week	60	NI	60
FT – month	85 (30d)	100 / 676 (28d)	100 (28d)
FT – year	850	1000	900 or 1000
Min. rest	12	10 (8 sleep)	12 (home) 10 (away)
Exten. rest	8 days/ month	30h / 168 (7d)	36h / 168 2 local nig.



## FRMS – Brazil's proposal

### – Scenario

- Brazilian current fatigue regulation: Prescriptive (Law)
- Law does not permit variations ( $\neq$  from ICAO's FRMS)

### – Proposal

- Insert FRM in Civil Aviation Regulation (RBAC) 121 within SMS, as a Program (121.1225 – Domestic, Flag and Supplemental Op)
- FRMP as a part of SMS of the certificate holder



## FRMS – Brazil's proposal

- Actions started in 2010
  - One-day workshop – mar 2010
  - 2-day National seminar on fatigue – oct 2010
  - 2-day International seminar on fatigue – apr 2011
  - Proposal for the amendment of RBAC 121 – dec 2011
  - Public comments – feb 2012
  - Under analysis – today.



## FRMS – Brazil's proposal

- Amendment proposal for RBAC121:
  - 121.401 Insert FRM training in Training Program for
    - Flight crew
    - Cabin crew
    - Dispatchers
  - Appendix S: rostering personnel and supervisors must also receive training



## FRMS – Brazil's proposal

- Amendment proposal for RBAC121:
  - 121.465 and 121.471
    - An employee must report for duty **rested and fit**
    - The certificate holder **cannot assign** and the employee cannot accept an assignment if he/she is too fatigued to perform duties safely
    - The certificate holder shall make it **easy to report fatigue**
      - The report form should be adapted to gather fatigue data



## FRMS – Brazil's proposal

- Amendment proposal for RBAC121:
  - 121.465 and 121.471
    - The certificate holder shall manage crew and dispatcher fatigue under **SMS provisions** - 121.1225(a)(1)(iii) in accordance with Appendix S
  - Appendix S
    - 'Structure of the Fatigue Risk Management Program'
    - Defines the minimum to be provided by the Program

- Amendment proposal for RBAC121:
  - Appendix S
    - Operator shall describe procedures to route received **reports of unfitness** for duty
    - Fatigue report **forms** shall be easily available, easy to be understood and complete.
    - The forms may be **confidential and unnamed**
    - **Planned** *versus* **actual** time worked registration
    - **Rosters** should consider data from operational experience, evidences, bio-math models and scientific data
    - Special management for flights between **22h – 06h** (2 or more landings)

- Amendment proposal for RBAC121:
  - Appendix S
    - **Training contents**
      - » Regulatory requirements
      - » Policy adopted by the operator
      - » Concepts of sleep, causes of fatigue, fatigue and performance, workload, circadian rhythms, alertness
      - » Prevention and mitigation: nutrition, life styles, exercise
      - » Individual responsibilities
      - » Multiple time zones
      - » Accidents and incidents related to fatigue



# FRMS – Brazil’s proposal

- Amendment proposal for RBAC121:
  - To be effective:
    - **one year** from publication

REGULAMENTO BRASILEIRO DA AVIAÇÃO CIVIL RBAC n° 121 EMENDA n° 01	
<b>Título:</b>	REQUISITOS OPERACIONAIS: OPERAÇÕES DOMÉSTICAS, DE BANDEIRA E SUPLEMENTARES
<b>Aprovação:</b>	Resolução n° xxx. de yyyy de zzzz de 2011. <b>Origem:</b> SSO
<b>SUMÁRIO</b>	
<b>SUBPARTE A GERAL</b>	
121.1	Aplicabilidade
121.2	Programa de conformidade para operadores em transição para o RBAC 121. Alguns novos operadores
121.3	[Reservado]
121.4	Aplicabilidade das regras para operadores não autorizados
121.7	Definições
121.11	Regras aplicáveis para operações em países estrangeiros
121.15	Transporte de drogas narcóticas, psicotrópicas e outras drogas ou substâncias depressivas ou estimulantes
<b>SUBPARTE B [RESERVADO]</b>	
<b>SUBPARTE C [RESERVADO]</b>	
<b>SUBPARTE D [RESERVADO]</b>	
<b>SUBPARTE E APROVAÇÃO DE ROTAS PARA OPERAÇÕES DOMÉSTICAS E DE BANDEIRA</b>	
121.91	Aplicabilidade
121.93	Requisitos de rotas. Geral
121.95	Largura de rota
121.97	Aeródromos. Informações requeridas
121.99	Facilidades de comunicações
121.101	Serviços de informações meteorológicas
121.103	Facilidades de navegação em rota
121.105	Facilidades de serviços e de manutenção de rampa
121.106	Aeródromo de alternativa em rota ETOPS: serviços de prevenção, salvamento e combate a incêndio
121.107	Centros de despacho de voo
<b>SUBPARTE F APROVAÇÃO DE ROTAS E ÁREAS PARA OPERAÇÕES SUPLEMENTARES</b>	
121.111	Aplicabilidade
121.113	Requisitos para rotas e áreas. Geral
121.114	Altitudes mínimas de voo
121.115	Largura de rota
121.117	Aeródromos. Informações requeridas
121.119	Serviços de informações meteorológicas
121.121	Facilidades de navegação em rota
121.123	Facilidades para comunicações: operações suplementares
121.125	Facilidades de atendimento e serviços de rampa
121.127	Sistema de acompanhamento de voo
121.129	Sistema de acompanhamento de voo. Requisitos
<b>SUBPARTE G REQUISITOS DO SISTEMA DE MANUAIS</b>	
121.131	Aplicabilidade
121.133	Elaboração do sistema de manuais
121.135	Conteúdo do sistema de manuais
121.137	Responsabilidade e distribuição do sistema de manuais
121.139	Requisitos para manual a bordo de avião. Operações suplementares
121.141	Manual de voo dos vóveis
<b>SUBPARTE H REQUISITOS DOS AVIÕES</b>	
<b>Origem:</b> SSO	1/307



Obrigada!

Thank you!

¡Gracias!

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