







Training and Innovation

Training the New Brazilian Police Forces





OBJECTIVE:

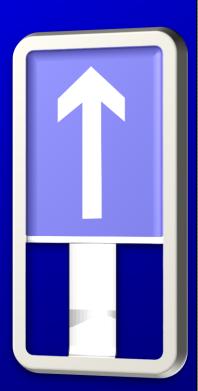
- 1. Identify the key points relating to the operations of the public security aviation in Brazil.
- 2. Identify the means of training for public security aviation pilots and the new needs for training arising from the employment of new equipment.





CONTENT:

- 1. Brazil in numbers
- 2. Mission Spectrum
- 3. Basic Formation and Operational Training
- 4. Advanced Training
- 5. New Needs in Training







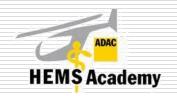
1. Brazil in numbers



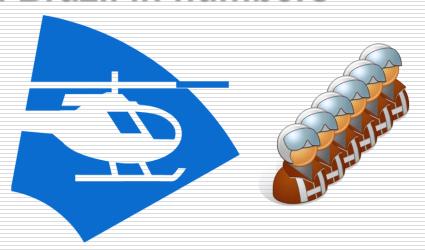
- a. Except Roraima, Amapá and Paraíba, all other states (23) have some kind of public security aviation unit (Military Police, Civil Police, Fire fighters, environmental Police, etc.)
- b. 163 helicopters (Some states also have fixed wing aircrafts)
- c. 80% AS350
- d. EC135 and EC145 São Paulo, Minas Gerais, Bahia, Pará, Maranhão and Ceará
- e. 500 flight hours/year/acft (average)

Source: SENASP





1. Brazil in numbers



- e. 6 pilots per helicopter (average)
- f. Just a few states have their own School (São Paulo, Rio de Janeiro, Rio Grande do Sul and Ceará)
- g. Graduated at Civil Aviation
 Schools (most of them at EFAI)

Source: SENASP





2. Mission Spectrum

a. LAW ENFORCEMENT

- Patrol
- Policing ostensible support
- Ground forces support
- Environmental police
- Control of riots and civilian disorders
- Escort and transportation of prisoners
- Control of urban traffic and highways
- Intelligence actions

Source: GRPAe-SP









2. Mission Spectrum

b. CIVIL DEFENSE

- Fire fighting
- Rescue
- Aeromedical evacuation
- Transport of organs (for transplants purposes)
- Humanitarian support in natural disasters (flood, landslides, etc.)















3. Basic Formation and Operational Training

POLICE AVIATION SCHOOL

CIVIL AVIATION SCHOOL

- ✓ SP/CE/RJ/RS
 - From ab-initio to CPL
 - Operational training (day / night patrol, sling load, hoist rescue, basket rescue, fire fighting, etc.)
 - Cabin Crew (doctors and nurses) familiarization
 - Cabin Crew (system operators) specialization





3. Basic Formation and Operational Training

POLICE AVIATION SCHOOL

CIVIL AVIATION SCHOOL

- ✓ BASIC FORMATION
 - From ab-initial to CPL
 - FIR
 - IR





3. Basic Formation and Operational Training

c. EFAI

- From ab-initio to CPL
- FIR / IR
- Transition to turbine /Transition to type (AS350)
- TTP Police Tactical
 Training (day / night patrol, sling load, fire fighting, hoist rescue, basket rescue and rappel)
- Transition to multiengine^(*)
- (*) Capable to do, but so far any state asked to.

















EFAI / ADAC

OTHER TRAINING CENTERS

✓ EC135 and EC145 Training (IR refreshment, normal and emergency procedures, confined areas, elevated helipad, operation in remote accident sites, etc.)







EFAI / ADAC

OTHER TRAINING CENTERS

- ✓ FLIGHT SAFETY (FFS)
 - EC135 (TR Proficiency check, IR refreshment, normal and emergency procedures)
- ✓ AMERICAN EUROCOPTER (FTD)
 - EC145 (IR refreshment, normal and emergency procedures)
- ✓ CAE (FTD)
 - AS350 (mission training, normal and emergency procedures)





EMERGENCY PROCEDURES

a. EFAI

- Hydraulic failure (Straightand-level flight, approach, running landing, hovering IGE, hovering turns, sideward/rearward flight and vertical landing);
- FCU failure (flight, go around and running landing)







EMERGENCY PROCEDURES

a. EFAI

- T/R flight control failure (go around and running landing)
- T/R power drive failure (autorotation)
- Engine failure (straight autorotation, 90°, 180°, and 360°, HIGE, HOGE, taxi, approach and during takeoff from 0 to 60 kt at each 10 Kt)













5. New Needs in Training

MULTICREW

a. IR

b. CRM







5. New Needs in Training

NVIS

- a. FLIR
- b. NVG











5. New Needs in Training

SPECIAL SCENARIOS

a. Emphasis in brownout and flat light environment scenarios



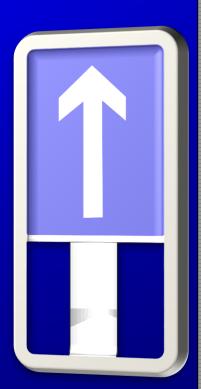






CONTENT:

- 1. Brazil in numbers
- 2. Mission Spectrum
- 3. Basic Formation and Operational Training
- 4. Advanced Training
- 5. New Needs in Training







OBJECTIVE:

- 1. Identify the key points relating to the operations of the public security aviation in Brazil.
- 2. Identify the means of training for public security aviation pilots and the new needs for training arising from the employment of new equipment.





Danke!!



Nilton Cícero Alves

Teaching Director

Rua Hibisco, 210C – Campina Verde – 32150-210 – Contagem – MG Phone: +55 (31) 2122-7474 – Cell Phone: +55 (31) 9161-5673 www.efai.com.br nilton.alves@efai.com.br