"The issue is real. We have plenty of pilot reports of drones where they were not expected, particularly at low altitudes around airports... There is no denying that there is a real and growing threat to the safety of civilian aircraft (coming from drones)"

• Mr. Tony Tyler, Director-General of IATA (Singapore Airshow Aviation Leadership Summit, on February 15, 2016)
“Drone invaded airspace over Congonhas, in São Paulo, flights were impacted”

“Drones are changing the way of thinking about maintenance and monitoring services.”

(PWC, *global report on the commercial applications of drone technology*, 2016)

“If regulated and operated correctly and safely, unmanned vehicle technologies can revolutionize future air transport, airport operations, cargo operations and ground handling, besides others…”

Mrs. Céline Hourcade, Head Cargo Transformation of IATA
REMTTELY PILOTED AIRCRAFT SYSTEMS & BRAZILIAN AIRSPACE
OVERVIEW

AIRSPACE ACCESS RULES

RPAS AIRSPACE ACCESS AUTHORIZATION SYSTEM (SARPAS)

PROJECTS & FUTURE
OVERVIEW

AIRSPACE ACCESS RULES

RPAS AIRSPACE ACCESS AUTHORIZATION SYSTEM (SARPAS)

PROJECTS & FUTURE
www.decea.gov.br/drone
GENERAL

• **ICA 100-40:**
  • DISTANCE FROM AIRPORTS:
    • 100FT > 3 NM
    • 400 FT > 5NM
  • DON’T FLY OVER PEOPLE;
  • NEED A WAIVER OR AUTHORIZATION TO FLY
    • IMMEDIATE WAIVER;
    • 2 – 18 DAYS AUTHORIZATION

SPECIFIC

• **AIC 17/18:**
  • MODELS;
  • SPECIFIC PLACES & PARAMETERS.

• **AIC 23/18:**
  • GOVERNMENT AGENCIES & ARMED FORCES;
  • OPERATIONAL ASSUMPTIONS;
  • WAIVER.

• **AIC 24/18:**
  • LAW ENFORCEMENT UNITS;
  • FIRE FIGTHERS;
  • OPERATIONAL ASSUMPTIONS
  • WAIVER.
GOVERNMENT AGENCIES & ARMED FORCES RPAS OPERATION PARAMETERS

Source: AIC-N 23/18
OVERVIEW

AIRSPACE ACCESS RULES

RPAS AIRSPACE ACCESS AUTHORIZATION SYSTEM (SARPAS)

PROJECTS & FUTURE
RPAS AIRSPACE ACCESS AUTHORIZATION SYSTEM

- WEB SYSTEM;
- AGILITY;
- STATISTICS; &
- OVERVIEW ABOUT RPAS OPERATIONS.

FIRST AUTHORIZATION WITH SARPAS – 08 DEC 2016
Bem-Vindo ao SARPAS
Solicitação de Acesso de Aeronaves Remotamente Pilotadas (RPAS)

O SARPAS foi desenvolvido com o objetivo de facilitar a solicitação de acesso ao Espaço Aéreo para o uso de Sistemas de Aeronaves Remotamente Pilotadas (RPAS/DRONES) no Espaço Aéreo Brasileiro.

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Senha
Digite sua senha

Repita no campo ao lado o número que aparece na figura
7 7 1 2
Repita o número ao lado

PORTAL DRONE/RPAS
www.decea.gov.br/drone
PORTAL DRONE/RPAS

www.decea.gov.br/drone
Definir como ponto de decolagem.
OVERVIEW

AIRSPACE ACCESS RULES

RPAS AIRSPACE ACCESS AUTHORIZATION SYSTEM (SARPAS)

PROJECTS & FUTURE
GLOBAL AIR NAVIGATION PLAN

B2-RPAS  |  Remotely piloted aircraft (RPA) integration in traffic

Continuing to improve the remotely piloted aircraft (RPA) access to non-segregated airspace; continuing to improve the remotely piloted aircraft system (RPAS) approval/certification process; continuing to define and refine the RPAS operational procedures; continuing to refine communication performance requirements; standardizing the lost command and control (C2) link procedures and agreeing on a unique squawk code for lost C2 link; and working on detect and avoid technologies, to include automatic dependent surveillance – broadcast (ADS-B) and algorithm development to integrate RPA into the airspace.

Applicability

Applies to all RPA operating in non-segregated airspace and at aerodromes. Requires good synchronization of airborne and ground deployment to generate significant benefits, in particular to those able to meet minimum certification and equipment requirements.

Figure 6: The ASBU Modules converge over time on their target operational concepts and performance improvements.
Goal: Improve in the Brazilian Drone Community the consciousness about safety issues at RPAS operations.
Goal: Provide knowledge about airspace access rules and the other laws involved in RPAS operations to law enforcement units

https://www.decea.gov.br/?i=midia-e-informacao&p=pg_noticia&materia=decea-inicia-aplicacao-de-sancoes-administrativas-nos-voos-irregulares-de-rpas-e-aeromodelos
Goal: Development of Operational and Technical Requirements for RPAS detection & mitigation risks near airport.
RPAS DECEA Project
Flight Inspection

Goal: Development of an Operational Concept about use RPAS in Flight Inspections.

Phases:
- PAPI (2018/2019)
- ILS/VOR (2019/2020)
- GNSS Systems (2021/2022)

Implementation of RPAS in Flight Inspection Activities at Brazilian Airspace Control System (SISCEAB)

Leonardo Roberto Marcondes

Flights and Services

Rio de Janeiro, Brazil

IFIS 2018 Symposium
“the achievements showed up the viability of this use due to the **agility** and the **great operational gain** in terms of time of execution with **less interference** at the aerodrome operational issues”

• UTM PROJECT:
  • ICAO RPAS/ATMOPS WP;
  • BRAZILIAN OPERATIONAL CONCEPT;
  • UTM SERVICE PROVIDERS;
  • UNMANNED AIRSPACE BELOW 1000FT DESIGN;
  • .....
RPAS DECEA Project
PFF019 – RPAS
ROADMAP RPAS DECEA

- AIRSPACE ACCESS REGULATION MILESTONE;
  ICA 100-40

- SARPAS

- PAPI FLIGHT INSPECTION;
  RPAS DETECTION & MITIGATION RISK NEAR AIRPORT;
  UTM OPERATIONAL CONCEPT.

- ILS/VOR FLIGHT INSPECTION INITIAL PROJECT;
  UTM TECH CONCEPT;
  SARPAS IMPROVEMENT;
  AIRPORT INFRASTRUCTURE INSPECTION.

- D&A OPERATIONAL ANALYSIS;
  UNMANNED AIRSPACE SURVEILLANCE (UAS) ABOVE 1000FT;
  RPAS SURVEILLANCE BELOW 1000FT.

- GNSS FLIGHT INSPECTION

- ATM RPAS INTEGRATION

- ATM RPAS INTEGRATION
A FAB presente em 22 milhões de km².
OVERVIEW

AIRSPACE ACCESS RULES

RPAS AIRSPACE ACCESS AUTHORIZATION SYSTEM (SARPAS)

PROJECTS & FUTURE
THANK YOU!!!

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