

DEPARTMENT OF CIVIL AVIATION MALAYSIA



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*Presented by:
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Director General*

DEPARTMENT OF CIVIL AVIATION MALAYSIA

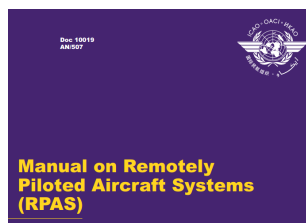
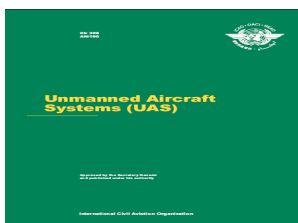
Introduction

- Since 2008, unmanned aircraft systems (UAS) have operated on a limited basis in the Malaysian Airspace
- Potential uses:
 - aerial photography, surveying land and crops, communications and broadcast, monitoring forest fires and environmental conditions, and protecting critical infrastructures



PURSUIT OF GLOBAL STANDARDISATION

- Early 2007 : Formation of ICAO Unmanned Aircraft System Study Group (UASSG)
 - To draw up global regulatory framework
- Nov 2014 : Remotely Piloted Aircraft System (RPAS) Panel
 - An international committee to replace the lower-level Study Group
 - Developing Standard and Recommendation Practices (SARPs) to facilitate the safe, secure and efficient integration of RPA into non-segregated airspace and aerodrome.
 - Reference ICAO's Manual on Remotely Piloted System



ICAO on RPAS

- New component of the aviation system
- Cutting-edge developments in aerospace technologies
- Offer advancements, open new and improved civil/commercial applications
- Improvements to safety and efficiency
- To understand, define, integrate
- Affects licensing, certification, medical qualification, detect and avoid technologies, frequency spectrum, separation standards
- Require regulatory framework

DCA MALAYSIA ON DRONES

- Adopt international regulatory framework through ICAO SARPs, guidance material
- Safe, harmonised and seamless manner comparable to manned operations
- Manage airspace utilisation
- Registration, approval and certification
- Enhance user and public awareness
- Promote safety culture
- Law enforcement

ISSUES TO CONSIDER

- Airspace classification
- RPAS type, capabilities and limitations
- Operator skill, knowledge, awareness
- Radio communications - continuously monitored by the UAS-p
- Purpose(s) of operations
- Insurance – sufficient coverage for collision
- Safety risk to other airspace users - unintentional collisions, deliberate attacks or by distracting pilots or controllers
- Security – spoofing, jamming, interference

REGULATION

Enforcing laws related to UAS through the new Civil Aviation Regulations 2016.

- Gazetted and came into force on 15 April 2016.

Unmanned Aircraft System.

Reg. 140. (1) No person shall fly an unmanned aircraft system –

- a) in Class A, B, C, or G airspace;
- b) within an aerodrome traffic zone; and
- c) at the height of more than 400 feet above the surface of the earth

The person in charge of an unmanned aircraft system shall not cause or permit any article or animal whether or not attached to a parachute to be dropped from the unmanned aircraft system.

REGULATION (CONT.)

Aerial Work involving Unmanned Aircraft System

Reg. 141 (1) No person shall fly an unmanned aircraft system for the purpose of aerial work without the authorization from the Director General.

Small Unmanned Aircraft

Reg. 142 (1) The person in charge of a small unmanned aircraft may fly the small unmanned aircraft if he is satisfied that the flight can safely be made.

(2) The person in charge of small unmanned aircraft shall maintain direct and unaided visual contact with such unmanned aircraft sufficient to monitor its flight path in relation to other aircraft, persons, vehicles, vessels and structures for the purpose of avoiding collisions.

REGULATION (CONT.)

Small Unmanned Surveillance Aircraft

Reg. 143 (1) No person shall fly a small unmanned surveillance aircraft in any of the following circumstances without the authorization from the Director

General:

- (a) over any designated area;
- (b) within 150 metres of any designated area;
- (c) over any assembly in the open air of more than 1,000 persons;
- (d) within 150 metres of any assembly in the open air of more than 1,000 persons;
- (e) within 50 metres of any vessel, vehicle or structure which is not under the control of the person in charge of the aircraft;
- (f) within 50 metres of any person; and
- (g) within 30 metres of any person during take-off or landing.

Unmanned aircraft system of more than 20 Kilogrammes

Reg. 144 (1) No person shall fly an unmanned aircraft system having a mass of more than 20 kg without its fuel, without the authorization from the Director General.

CONTRAVENTION

- Refer Third Schedule CAR 2016 (Regulation 206)
- Part B – Regulations 4, 142

(a) where the person is an individual, to a fine not exceeding twenty-five thousand ringgit or to imprisonment for a term not exceeding one year or to both; or

(b) where the person is a body corporate, to a fine not exceeding eighty thousand ringgit.

- Part C – Regulations 140, 141, 143 and 144

(a) where the person is an individual, to a fine not exceeding fifty thousand ringgit or to imprisonment for a term not exceeding three years or to both; or

(b) where the person is a body corporate, to a fine not exceeding one hundred thousand ringgit.

CHALLENGES AND OPPORTUNITIES

- Robust, flexible, proportionate regulations required to cater for emerging technologies.
- Very wide usage range – mapping, police tasks, land survey, internet connectivity, precision agriculture, photography, flare stack inspection, pipeline inspection, volcanic activities monitoring, humanitarian activities
- Security
- Safety
- Drone privacy invasion

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Thank You