

FUTURE OF REGULATIONS AND STANDARDS IN DRONE INDUSTRY

CIVIL AVIATION AUTHORITY OF MALAYSIA

UAS UNIT FLIGHT OPERATIONS DIVISION | 19.08.2021

Drone Market In Malaysia

1. Applications

- i. Aerial Mapping
- ii. Aerial Photography / Videography
- iii. Agriculture
- iv. Infrastructure Inspection
- v. Surveillance
- vi. Enforcement
- vii. Training

3. Key Players



2. Market Size (2015 - Jan 2021)

66,000 drones of all types legally imported into the country



More than **500** drones involves in precision agriculture

4. Market Direction in 5 – 10 years



Urban Delivery



Urban Air Mobility



Long Range Delivery (including cross border operations)

BVLOS Applications

UAS Regulatory Stakeholders in Malaysia

1. National Level

- i. Ministry of Transport
- ii. Civil Aviation Authority of Malaysia (CAAM)
- iii. Department of Survey and Mapping Malaysia (JUPEM)
- iv. Chief Government Security Office (CGSO)
- v. Malaysia Communications and Multimedia Commission (MCMC)
- vi. SIRIM formerly known as Standard and Industrial Research Institute of Malaysia

2. State Level

- i. Sarawak Chief Minister Office
- ii. Sabah Chief Minister Office
- iii. Sabah Land and Survey Department

Provide Services for:

- Authorisation To Fly (ATF)
- Certificate of Approval (CoA)
- Aerial Work Certificate (AWC)
- Special UAS Project Approval (SUPA)
- Aerial Photography / Mapping Permit
- Protected / Prohibited Area Approval Letter
- Apparatus Assignment (AA)
- Certificate of Conformity (CoC)
- Special Approval (SA)
- UAS Activity Approval Letter

CAAM UAS Policies and Initiatives

1. Released a new Civil Aviation Directives with regards to Unmanned Aircraft, to cater the surging use of drone in Malaysia, effective on 1st March 2021.

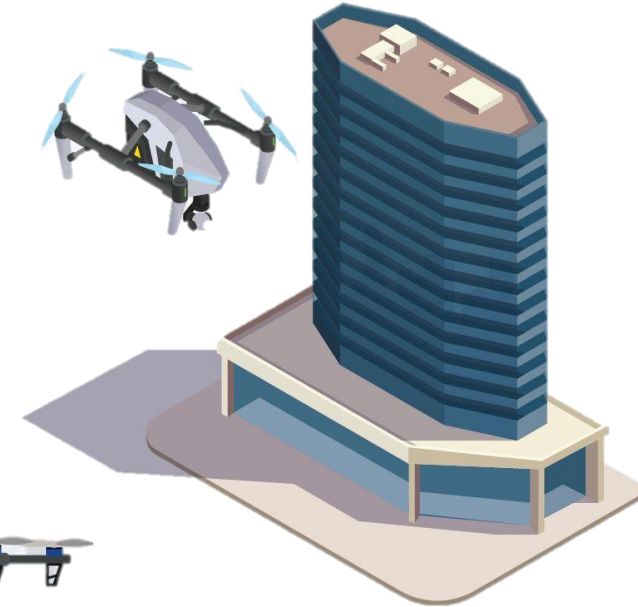
1 Civil Aviation Directives 6011 (I)
Remote Pilot Training Organisation (RPTO)



2 Civil Aviation Directives 6011 (II)
Agricultural UAS Operations (AGR)



3 Civil Aviation Directives 6011 (M)
Special UAS Project (SUP)



CAAM UAS Policies and Initiatives

2. ADDITIONAL OF CAD 6011 AND AMMENDMENT OF CIVIL AVIATION REGULATION 2016:

- Amendment to be made in Regulation 140 – 144
- CAD 6011 will further elaborate on the new amendment of Regulation.

Concept of the new regulation

- Two basics concepts



The focus is on the risk that operation presents, and so more effort or proof is required where the risk is greater.

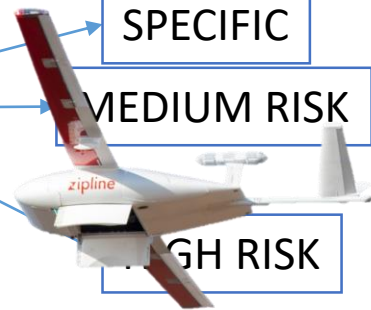
Operation Category	Level of Risk	Safety Assurance
Open	Low	Safety ensured through UA compliance & Operational Limitations. E.g. MTOM < 25KG, Height < 120M, VLOS. Authorisation via UTM system
Specific	Medium	Authorisation by CAAM following risk assessment performed by operator
Certified	High	Requirements compared to manned aviation. Certification of aircraft, operator & licensed remote pilot.

OPEN



LOW RISK

SPECIFIC



MEDIUM RISK

HIGH RISK

CERTIFIED



CAAM UAS Policies and Initiatives

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CAAM UAS Policies and Initiatives



3. Introducing the UTM system to support the new UAS regulations amendment and to efficiently manages the increasing amount of UAS applications as the results of the implementation of the UAS new regulations. (2022)

The UTM system provides *inter alia* to the authority and the UAS operators:

- UAS operator registration
- UA activity tracking
- Flight planning and management
- Supplementary data (i.e., meteorological, 4G data – traffic movement, ADS-B data service provider etc.)
- Authorisation of UAS operation inside the approved operational volume
- Airspace monitoring and management
- Flight historical data and analysis
- Enforcement

CAAM UAS Policies and Initiatives

4. Establishing multi-agencies committee consisting of all national and state level stakeholders (JAKUAS) to process applications received in accordance with the new CADs, with the aim to streamline the requirements of each agencies and to reduce the application processing time.



Thank You

Please visit www.caam.gov.my for more information