

## **SAFETY INFORMATION 11/2022**

11 August 2022



### **UNMANNED AIRCRAFT SYSTEM (UAS) OPERATIONS FLOWN WITHOUT APPROVAL FROM CAAM**

#### **Purpose:**

CAAM urges all Unmanned Aircraft System (UAS) operators to increase their vigilance and awareness of the Civil Aviation Regulations after a near-miss incident involving a manned aircraft and unmanned aircraft. CAAM wishes to emphasise that all UAS flight activities are currently bound to Civil Aviation Regulations 2016 ([MCAR 2016](#)) and Civil Aviation Directives (CAD) 6011 Part I, II and V. All UAS flying within Malaysian airspace requires an authorisation to fly issued by CAAM.

#### **Background:**

Recently, there have been an increased number of reported incidences of UAS flying without authorisation. Amongst those incidences, a serious incident was reported involving a manned aircraft and a UAS at the vicinity of an aerodrome at around 500ft AMSL on the departure path of the manned aircraft. The pilot subsequently reported the incident to the on-duty Air Traffic Controller (ATC) and has since made a police report of the incident.

#### **Discussion:**

##### **1. Operations in the vicinity of an Aerodrome**

Referring to Regulations 140(1)(b), no person shall fly an unmanned aircraft system within an aerodrome traffic zone unless authorised by the Authority and shall be subject to the requirements as may be determined by the Chief Executive Officer. CAAM classifies the boundary of an aerodrome traffic zone as **5 nautical miles** (9.26 kilometers) to the aerodrome reference point (ARP). Each aerodrome has its unique ARP, which can be found on the Malaysian AIP [here](#). As a rule of thumb, distance of at least 10 km must be kept from an airport.

A Notice to Airmen (NOTAM) shall be issued together with an authorisation to fly if UAS operations are to be conducted within an aerodrome traffic zone. The NOTAM serves to highlight all airspace users (manned/unmanned) of information such as hazard(s) that may concern a pilot/operator when operating in that operating area.

In addition to the above, UAS operators are also reminded of the following regulations:

- (a) Section 4 of Civil Aviation Act 1969 – A person shall not deliberately fly an aircraft which includes unmanned aircraft and causing unnecessary danger to any person or property;

- (b) Regulation 140 (1) (a) of MCAR 2016 – No person shall fly an unmanned aircraft system in Class A, B, C or G airspace, and 140 (1) (c) at more than 400 feet above the surface of the earth unless authorised by the Authority and shall be subject to the requirements as may be determined by the Chief Executive Officer; and
- (c) Regulation 98 of MCAR 2016 – A person shall not wilfully or negligently cause or permit an aircraft to endanger any person or property.

## **2. Operations at a Danger, Restricted, Prohibited Airspace as stated in AIP Malaysia or a Critical Infrastructures (Protected Areas and Protected Places) deemed by Act 298.**

Pursuant to Regulation 140 and to be read along with Regulation 143 of MCAR 2016, no person shall fly a small unmanned in any of the following circumstances without the authorisation from the Authority over any designated area or within 150 metres of any designated area. A designated area is any area which is used for residential, commercial, industrial or recreational purposes.

Furthermore, some airspace has potential hazards to aircraft and therefore for one reason or another, it must be restricted temporarily or permanently and are classified according to the following three types of areas as defined by ICAO which are Danger Area, Prohibited Area and Restricted Area. These airspace information can be found in the Malaysian Aeronautical Information Publication (AIP MALAYSIA) [online](#).

As legislations of UAS also involves approval from Department of Survey and Mapping Malaysia (JUPEM), JUPEM will liaise with Chief Government Security Office (CGSO) who is responsible for providing 'security protection' on all government assets and critical infrastructures within Malaysia.

A critical infrastructure are assets considered as vital to Malaysia via [Act 298](#) where their incapacitation or destruction would have a debilitating effect on security, national economic security, national public health or safety, or any combination thereof.

Additionally, MCAR and Civil Aviation Act 1969 (Act 3) also provide prohibitions to any person that he/she shall not wilfully, negligently and deliberately fly an aircraft which include unmanned aircraft to cause unnecessary danger and /or endanger to any person or property.

With understanding of the above three paragraphs, it is with upmost importance for all relevant stakeholders to adhere and apply for approval before conducting any UAS operations.

## **3. UAS operations infringing privacy**

UAS Operators and remote pilots should be aware that the collection of images of identifiable individuals, even inadvertently, when using surveillance cameras mounted on an unmanned aircraft, may be subjected to the Malaysian Personal Data Protection Act 2010 [[Act 709](#)]. UAS Operators must be aware of their responsibilities regarding operations from private land and any requirements to obtain the appropriate permission before operating from a particular site. They must observe relevant trespass laws and do not unwittingly commit a trespass whilst conducting a flight.

MCAR 2016 protects Personal Data Protection Act with Regulation 143 which clearly states that small unmanned aircraft system shall only be flown upon authorisation from the Authority.

#### 4. Penalty

Any person who contravenes with the provision(s) specified under paragraph 1 above commits an offence and shall upon conviction be liable to:

(a) Section 4 of Civil Aviation Act 1969 – imprisonment for a term not exceeding five years or to a fine not exceeding five hundred thousand ringgit, or to both.

*(Applicable to Section 4 of Civil Aviation Act 1969)*

(b) Regulation 206 (3) of MCAR 2016 -

(1) 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

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

*(Applicable to Regulation 140 and Regulation 98 of MCAR 2016).*

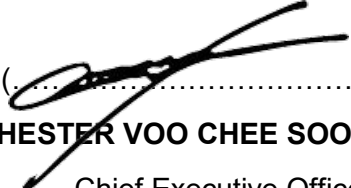
#### Action Required:

1) All UA flights must have the appropriate approval from all agencies that holds legislations on UAS. The following table lists the agencies involved:

Series	Name of Agency	Job Function
1	<b>Standard and Industrial Research of Malaysia (SIRIM)</b>	Ensure UAS brought in meets the safety standard requirement for electronics equipment.
2	<b>Malaysian Communications and Multimedia Commission (MCMC)</b>	MCMC regulates and promote the communication and multimedia industry and delicately balances the overall interest of the consumer, industry and investor. The allocated frequency for the Control and Non-Payload Communications (CNPC) and payload links 433MHz to 435 MHz, 2400 MHz to 2500 MHz and 5725 MHz to 5875 MHz. An Apparatus Assignment shall be requested if the frequency is differing than the allocated frequencies.
3	<b>JUPEM</b>	If the UA is capable of undertaking surveillance and measuring activities (such as aerial photo, aerial mapping, Lidar etc.) then the UAS operator must seek an approval from the Department of Survey and Mapping. The Department of Survey and Mapping's responsibility also extends to liaising with CGSO, ATM-BSP and RMP to conduct the background check and ensuring the level of security of the proposed area of operation.
4	<b>Chief Government Security Office (CGSO)</b>	Responsible for providing 'security protection' on all government assets and critical infrastructures within Malaysia.

5	<b>Wisma Tanah dan Ukur Sabah</b>	Additional authorisation required for UA operations in Sabah
6	<b>Office of Premier of Sarawak</b>	Additional authorisation required for UA operations in Sarawak.
8	<b>Civil Aviation Authority of Malaysia (CAAM)</b>	<p>Safety and Security of UAS Operations by issuing out approvals either as:</p> <p>(a) Authorisation to Fly – normal operations with lower intrinsic value that is conducted within visual line of sight.</p> <p>(b) Certificate of Approval (COA) – given to Approved Training Organisation - Remote Pilot Training Organisation (ATO-RPTO) which conducts competency training for the issuance of Remote Pilot Certificate of Competency.</p> <p>(c) Aerial Work Certificate (AWC) – given to Agricultural UAS Operators that conducts agricultural UAS operations.</p> <p>(d) Special UAS Project (SUP) Approval – given to operator which conducts specialised operations, such as:</p> <ul style="list-style-type: none"> <li>(i) Carriage of items, inclusive of carriage of Dangerous Goods</li> <li>(ii) Beyond Visual Line of Sight</li> <li>(iii) Research and Development</li> <li>(iv) Any other operations that require an additional operational support activity from the CAAM due to the additional risks it involves.</li> </ul>

2) Further information can be found on the CAAM [website](#).

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