UNMANNED AIRCRAFT - OPERATIONAL AUTHORISATION

Civil Aviation Authority

Model Aircraft Article 16 Authorisation

LMA

1.	**AUTHORITY RELEASING THE AUTHORISATION**
1.1 **State**	**United Kingdom**
1.2 **Issuing Authority**	**United Kingdom Civil Aviation Authority**
1.3 **Authorising Signatory Point of Contact**	**Vikas Dangi – RPAS Sector Lead**
2.	**ASSOCIATION INFORMATION**
2.1 **Association Name(s)**	The Large Model Aircraft Association Ltd. Trading as the Large Model Association (LMA).
2.2 **Point of Contact**	Rob Buckley
2.3 **Authorisation Number**	**UAS13534**
2.4 **Application Reference**	UAS-72182
2.5 **Relevant/Other Comments**	Fifth Issue (January 2023) Expiry date Correction Fifth Issue (December 2022) Fourth Issue (July 2022) Third Issue (December 2021). Second Issue (May 2021) First Issue (Jan 2021- joint application) now succeeded by this authorisation.

3.	**GENERAL LIMITATIONS AND CONDITIONS FOR ALL OPERATIONS**
3.1 **Applicability**	This authorisation shall only apply to the LMA and any member of the LMA.
3.2 **Type of Unmanned Aircraft**	(1) This authorisation shall only apply to UAS operators and remote pilots of 'model aircraft', as defined in section 7.1. This includes: - Any model aircraft - Any control line model aircraft - Any round-the-pole model aircraft Subject to the mass limitations described in section 3.6 **Note 1:** *'Control Line model aircraft' and 'Round-the-pole model aircraft' with a mass of not more than 1Kg are outside the scope of the Regulation (EU) 2019/947 (the UAS Implementing Regulation) as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018.) and are instead regulated within the Air Navigation Order, article 265E.* **Note 2:** *Model aircraft operated indoors, or in a location in which there is no possibility of it escaping into the 'outside' airspace (e.g. inside a closed building or mine) , do not fall within the scope of the Implementing Regulation, and therefore are also outside the scope of this authorisation.*
3.3 **Minimum Age**	(1) The minimum age for a UAS Operator is 18 years. (2) No minimum age for a remote pilot operating within the limits of this authorisation applies to any remote pilot of a model aircraft with a MTOM less than 25 Kg. (3) The minimum age for a remote pilot of a 'large model aircraft' is 16 years.
3.4 **Safety Accountability**	(1) The remote pilot is responsible for the safety of the operation and may only fly the model aircraft if reasonably satisfied that the flight can be safely made.
3.5 **Registration of the Operator**	(1) Any UAS Operator making use of this authorisation must ensure they are registered with the CAA in accordance with Article 14 of the UK Regulation (EU) 2019/947. (2) The registration number (OP-ID) must be clearly displayed on the aircraft, or within a compartment that can easily be accessed without the use of a tool. 'Small Control line model aircraft' are excluded from the requirement to register as an operator, as set out in UK Regulation (EU) 2019/947 Article 14(5). **Note 1**:

	The requirement to register does not apply to the operator of UAS operated only indoors. . **Note 2**: *The requirement to register only applies to:* - *the operator of a UAS with a mass greater than 250g; or* - *the operator of a UAS below 250g which is equipped with a sensor able to capture personal data and which is not a toy as defined in The Toys (Safety) Regulations 2011.* **Note 3**: *The definition of a 'toy' includes: 'products designed or intended, whether or not exclusively, for use in play by children under 14 years in age'.* *Products equipped with combustion engines are specifically excluded from this definition of a toy.*
3.6 **Maximum Take-Off Mass (MTOM)**	(1) This authorisation applies only to model aircraft with a MTOM (as defined in section 7.1) less than 25Kg, other than in the circumstances described in section 4.8. **Note 1:** *Model aircraft below 250g, which are operated in accordance with this authorisation, are subject to the limitations and conditions described throughout this authorisation. In most circumstances, however, they may be operated within the Open Category, and subject to the basic requirements for a UAS with a mass less than 250g. There is no additional registration requirement for UAS below 250g, in addition to that set out in section 3.5.* **Note 2:** *The requirements for operating a large model aircraft, as defined in section 7.1, are set out in section 4.8.*
3.7 **Location(s) of operation**	(1) This authorisation may be used throughout the United Kingdom, at: (a) For model aircraft with a MTOM less than 25Kg, any established model flying club site; (i) Any established model flying club located in a 'built-up area', must conduct a risk assessment, with suitable mitigations. This must be made available to members flying at that site, who must be familiar with it; or (b) For model aircraft with a MTOM less than 25Kg, any other suitable area, which is not a 'built-up area' other than in the circumstances defined in 2(a) below; (i) A built-up area which is *only* used substantially for <u>recreational</u> purposes may be considered a 'suitable area'. Operation within such an area must be supported by a risk assessment; or (c) For large model aircraft, at a location in accordance with the limitations and conditions set out within the Operational Authorisation. Section 4.8

	sets out additional requirements for the operation of large model aircraft. (2) A model aircraft flown within the limits of this authorisation must not be flown within any Danger, Restricted or Prohibited airspace, unless it is flown in accordance with the relevant permission requirements of that airspace. **Note:** *Although there is no regulatory requirement to obtain permission to operate within controlled airspace, remote pilots are reminded of their responsibility set out in section 3.10 (3)(b) of this authorisation, and the requirement set out in ANO article 240, that 'A person must not recklessly or negligently act in a manner likely to endanger an aircraft, or any person in an aircraft'.*
3.8 **Type of Operation**	(1) The remote pilot of a model aircraft must maintain direct, unaided visual contact with the aircraft sufficient to monitor its flight path in relation to other aircraft, persons, vehicles, vessels and structures for the purpose of avoiding collisions, unless the aircraft is being flown in accordance with the 'First Person View' conditions of section 4.3. (2) The operation of model aircraft for purposes other than sport, recreation, education or demonstration, places the operation outside the definition of a model aircraft, and therefore this authorisation may not be used for such operations.
3.9 **Operating heights/altitudes/levels**	(1) The operation of model aircraft within this authorisation is limited to a height of 120m (400ft), unless the conditions below in 3.9 (2) are met. (2) A model aircraft is permitted to fly at a height in excess of 120m (400ft) above the surface, in accordance with the limitations of this authorisation, if all the conditions in sub paragraphs a) to e) below are met. *a)* The model aircraft is not a rotorcraft with more than two lift generating rotors or propellers; b) The model aircraft is not an 'automated model aircraft'; c) The model aircraft is not being flown within the Flight Restriction Zone of an aerodrome, unless operating with the appropriate permission from the aerodrome as set out in ANO article 94A. d) The model aircraft remains within the visual line of sight of the remote pilot; and e) The mass of the model aircraft (MTOM- see section 3.6) shall not exceed 7.5Kg, with the exception of any of the circumstances in e(i), (ii), (iii) or (iv). below; i. The model aircraft is a glider, the mass (MTOM) of which does not exceed 14Kg. In this case, it <u>may not</u> be flown at a height greater than 120m above the remote pilot but <u>may</u> be flown at a height exceeding 120m above the surface directly beneath the glider. ii. The model aircraft is being operated at an established club site approved for the operation of model aircraft with a MTOM

	greater than 7.5Kg above 400ft, by the LMA, following the conditions set out in section 4.7. iii. The model aircraft is being operated within the conditions set out in section 4.4(6) (*Large model aircraft within a display)*, for the purpose of a flying within a 'model aircraft flying display'. iv. The model aircraft is being operated within the conditions set out in section 4.4(7) (*model aircraft within a display),* for the purpose of flying within a 'model aircraft flying display*'.*
3.10 **Remote Pilot Responsibilities**	(1) The remote pilot shall: (a) Not perform duties under the influence of psychoactive substances or alcohol or when they are unfit to perform their tasks due to injury, fatigue, medication, sickness or other causes; (b) Have the appropriate remote pilot competency as defined in section 3.12 and carry a proof of competency while operating the model aircraft. (c) Be familiar with manufacturer's instructions provided by the manufacturer of the UAS, if applicable. (2) Before starting a UAS operation, the remote pilot shall comply with all of the following: (a) Obtain updated information relevant to the intended operation about any relevant airspace restrictions; (b) Ensure that the operating environment is compatible with the limitations and conditions set out within this authorisation; (c) Ensure that the model aircraft is in a safe condition to complete the intended flight safely; (d) Ensure that any relevant information about the operation has been made available to the relevant air traffic service (ATS) unit, other airspace users and relevant stakeholders, when required. (3) During the flight, the remote pilot shall: (a) Comply with the limitations and conditions set out within this authorisation; (b) Avoid any risk of collision with any manned aircraft and discontinue a flight when continuing it may pose a risk to other aircraft, people, animals, environment or property; (c) Comply with any applicable airspace restrictions; (d) Comply with the rules and procedures of the LMA; (e) not fly close to or inside areas where an emergency response effort is ongoing unless they have permission to do so from the responsible emergency response services. **Note 1:** *It is acknowledged that in many instances, the UAS Operator and the remote pilot is the same person. In such cases, this person must discharge the responsibilities of both the remote pilot and the UAS Operator (Section 3.16).*

3.11 **Separation Distances for model aircraft**	1. A model aircraft that is not a free flight model aircraft, and with a MTOM above 250g and not more than 7.5Kg shall not be flown: a) Within a horizontal distance of 30m of 'assemblies of people'; and b) Within 30m of any 'uninvolved person'. This distance may be reduced to 15m for take-off and landing if required for practical operations and there are locally applied mitigations to protect uninvolved persons, following a local risk assessment. 2. A model aircraft with a MTOM greater than 7.5Kg, and less than 25kg shall not be flown: a) Within a horizontal distance of 50m of 'assemblies of people'. This distance may be reduced to 30m for take-off and landing if required for practical operations and there are locally applied mitigations to protect uninvolved persons, following a local risk assessment; and b) Within 30m of any 'uninvolved person'. **Note 1:** *Specific limitations for the operation of free flight model aircraft are set out in section 4.2.* **Note 2:** *Specific limitations on the operation of Large Model Aircraft are set out in section 4.8, and within individual operational authorisations.*
3.12 **Remote Pilot Competence**	(1) Any remote pilot operating in accordance with this authorisation must demonstrate a suitable level of pilot competence, by either (a) or (b) below: a) Passing one of the following online tests: i. CAA online DMARES test; ii. LMA Theoretical Proficiency online test b) Having passed the test (**prior** to 31/12/2020) for: i. LMA Basic Proficiency or Full Proficiency test; (2) Remote pilots demonstrating competence through method 1b must also confirm to the LMA that they have read and understood the conditions and restrictions that apply to them when flying unmanned aircraft in accordance with this authorisation. (3) The LMA **must** keep a record of such confirmations that can be made available for audit on request. (4) Any remote pilot of a 'large model aircraft' must demonstrate sufficient competence, in addition to (1) and (2) above, through the successful completion of the flight test programme, part of which assesses the competence of the pilot to fly the specific aircraft. **Note 1:** *The requirements of section 3.12 apply to a model aircraft of any mass, within the scope of this authorisation, including those below 250g.*

3.13 **Reporting Requirements**	(1) Correct reporting to the AAIB *and* the CAA **must** be carried out. (2) The following **must** be reported to the AAIB in accordance with Regulation (EU)996/2010 (as retained in UK domestic law) and the AAIB website: ▪ **Accidents** ▪ **Serious Incidents** (3) The following **must** be reported to the CAA, in accordance with Regulation (EU) 376/2014 (The reporting regulation) (as retained in UK domestic law): ▪ **Occurrences** which involve any of the following: o Fatality o Serious Injury o Manned aircraft The following **must** be reported to the CAA, as a condition of this authorisation: ▪ **Serious Incidents or Other Occurrences** which involve any of the following: o Manned aircraft o Operating above 400ft o Operating less than 50m from uninvolved people o The operation of a Large Model Aircraft o Operations at a 'model aircraft flying display'. ▪ Any instances of flight beyond the visual line of sight of the remote pilot **Note 1:** *Further guidance on reporting requirements and relevant definitions can be found in CAP 722.*
3.14 **Dropping of Articles**	(1) Only insofar as it relates to the dropping of material, model aircraft operations are exempt from the requirements in UK Regulation (EU) 2019/947 Article 4(1)(f), subject to the condition that: a) The remote pilot must not cause or permit any article or animal to be dropped from an unmanned aircraft so as to endanger persons or property.
3.15 **Member Compliance**	(1) Any member of the LMA making use of this authorisation shall comply with the procedures and rules set out by the LMA. (2) The rules and procedures of the LMA shall reflect the conditions and limitations of this authorisation.
3.16 **Operator Responsibilities**	1) The registered operator (The '*UAS operator'*) for the model aircraft must comply with the following requirements: a) Ensure the remote pilot is in possession of the relevant remote pilot competence requirements, as set out in section 3.12; b) Ensure that the model aircraft is sufficiently maintained, and that any repairs carried out to it are satisfactorily made, such that it is in a safe condition to be flown; c) Ensure that the remote pilot is aware of the limitations and conditions of this authorisation; d) Ensure that the remote pilot is aware of the rules and procedures of the LMA;

	e) Ensure that any necessary additional permissions or authorisations are obtained for any specific flight; f) Ensure the remote pilot is aware of any relevant airspace limitations; g) Ensure that the registration of the UAS Operator is carried out, in accordance with section 3.5 of this authorisation. **Note 1:** *It is acknowledged that in many instances, the UAS operator and the remote pilot is the same person. In such cases, this person must discharge the responsibilities of both the remote pilot (Section 3.10), and the UAS Operator.* **Note 2:** *A number of additional requirements are set out within LMA Operational Authorisations issued to individual UAS Operators, which layer additional requirements on top of those listed in 3.16.*
4	**SPECIFIC CONDITIONS**
4.1 **Physically Constrained unmanned aircraft**	(1) Permission is not required to operate a 'control line model aircraft' or 'round-the-pole model aircraft' within an Aerodrome Flight Restriction Zone, providing all the following conditions are met: a) The tether line does not exceed 25m; b) The flight does not take place within the Runway Protection Zone (RPZ) part of the FRZ; c) The MTOM does not exceed 7.5Kg; d) The flight does not take place over, or within the boundary of the protected aerodrome unless permission for the flight has been obtained, as described in ANO article 94A. **Note 1**: *This exemption is set out in in section 8.1.* **Note 2:** *Model aircraft, that are operating indoors, are not subject to the FRZ requirement set out in ANO article 94A.* (2) 'Control line model aircraft' and 'round-the-pole model aircraft' operated within the limits of this authorisation, are exempt from the competency requirements set out in section 3.12. (3) 'Control line model aircraft' and 'round-the-pole model aircraft' are exempt from all the requirements set out in ANO article 265E, providing all the following conditions are met: a) The tether line does not exceed 25m; b) The MTOM does not exceed 1Kg. **Note 3:** *The Basic Regulation excludes powered tethered unmanned aircraft with a mass of not more than 1kg from the requirements of the UK Regulation (EU) 2019/947. ANO Article 265E re-applies certain requirements of the UK Regulation (EU) 2019/947 to tethered unmanned aircraft with a mass of not more than 1Kg. Section 8.2 contains an exemption that sets out that 'control line model aircraft'*

	and 'round the pole model aircraft' are exempt from the requirements of article 265E.
4.2 **Free Flight Model Aircraft**	(1) Before launching a 'free flight model aircraft', the remote pilot, taking into account the expected performance of the aircraft, the weather conditions, and any flight termination device fitted to the aircraft, shall be reasonably satisfied that the expected flight path will not infringe a Flight Restriction Zone, or any other airspace restriction (unless prior permission for flight within the airspace has been obtained). (2) The operation of free flight model aircraft must only be carried out within the limits and conditions of this authorisation, or within the Open category of operations. (3) A 'free flight model aircraft' shall not be: a. Launched, unless from an area which the remote pilot is able to satisfy themselves is free from uninvolved people. b. Launched, until the remote pilot has identified the area within which he or she believes the aircraft will remain (the 'flight volume') based on the considerations in (1). c. Flown, unless the remote pilot is satisfied that the aircraft will remain within the flight volume. d. Flown, unless the remote pilot is satisfied at the point of launch, that no uninvolved persons will enter flight volume and may be endangered by the flight of the free flight model aircraft. (4) A 'free flight model aircraft' shall not be deliberately flown beyond the visual line of sight of the remote pilot, unless otherwise in accordance with a suitable authorisation.
4.3 **First Person View model aircraft**	(1) A model aircraft, which is not a 'large model aircraft', may be flown by a remote pilot using first person view (FPV) equipment subject to the limitations of this authorisation, and following conditions (a) or (b), either: a) The aircraft is flown in accordance with all of the following conditions: i. Within a sterile area- meaning a cordoned off, closed area that uninvolved persons are excluded from; and ii. The aircraft is not flown at a height in excess of 160 feet (50 metres) from the surface; and iii. In accordance with procedures specifically set out for the purpose of the event, and in accordance with instruction from the race director or other nominated person, including any 'terminate race and land immediately' instruction; and iv. Any observers are suitably briefed and aware of their responsibilities, including the monitoring of people or aircraft entering the cordoned off area; or b) The aircraft is flown in accordance with all of the following conditions: i. The remote pilot is accompanied by a competent observer who maintains direct unaided visual contact with the unmanned aircraft sufficient to monitor its flight path in relation to other aircraft, persons, vehicles, vessels and structures for the purpose of avoiding collisions and advises the remote pilot accordingly; ii. The MTOM of the aircraft does not exceed 3.5Kg;

	iii. The aircraft is not flown: A. Within an aerodrome FRZ, unless appropriate permission has been obtained; B. At a height of more than 1000ft above the surface, unless it is a rotorcraft with more than 1 lift generating rotor or propeller in which case the height shall not exceed 400ft above the surface; C. Unless within an area as set out in section 3.7.; D. Over or within 50m of any 'assemblies of people'; E. Within 30m of any vessel, vehicle or structure which is not under the control of the remote pilot. F. Within 30m of any 'uninvolved person'.
4.4 **Model Aircraft Display Events**	(1) Any operator and remote pilot who wishes to operate a model aircraft as part of a 'model aircraft flying display' event may do so within the limits and conditions of this authorisation. (2) Any LMA model aircraft club wishing to host a 'model aircraft flying display' in accordance with this authorisation, must first obtain a permit from the LMA. (3) The LMA must assess each request for a 'model aircraft flying display', and where it considers it safe and appropriate, may issue a permit for the event to take place. The club responsible for the event must satisfy the association that the event has been organised in accordance with the relevant LMA procedures. (4) Any 'model aircraft flying display' which takes place above 400ft, must be notified to other airspace users through the use of a NOTAM. (5) It is the responsibility of the organiser of the 'model aircraft flying display' event to ensure that it is carried out safely. The LMA shall carry out necessary and appropriate oversight of such events, and ensure a suitable risk assessment is carried out, reviewed and approved prior to such a display. (6) For the purpose of flying within a 'model aircraft flying display', any large model aircraft must be flown under its own operational authorisation. The height limit of 400ft/120m, set out in these individually issued authorisations, may be increased as necessary, for the purpose of the flying display event. This temporary increase must be set out within the LMA permit for the model aircraft display, and shall apply to any large model aircraft flying within the display. This permit overrides the 120m maximum height limitation contained within the operational authorisation. (7) For the purpose of flying within a 'model aircraft flying display', any large model aircraft must be flown under its own operational authorisation. The minimum 75m horizontal separation distance from assemblies of people, set out in these individually issued authorisations, may be decreased to 50m, for the purposes of 'slow passes' during the flying display event. This temporary decrease must be set out within the LMA permit for the model aircraft display, and shall apply to any large model aircraft flying within the display. This permit overrides the 75m minimum separation distance contained within the operational authorisation.

	(8) For the purpose of flying within a 'model aircraft flying display', the height limit of 400ft/120m for any model aircraft with a MTOM greater than 7.5Kg but less than 25Kg, may be increased as necessary, for the purpose of the flying display event. This temporary increase for aircraft at the specific site, must be set out within the LMA permit for the 'model aircraft flying display', and shall apply to any model aircraft with a MTOM greater than 7.5Kg but less than 25Kg flying within the display. (9) Any model aircraft pilot operating a 'large model aircraft', or a jet turbine powered model aircraft of any mass, for the purpose of a 'model aircraft flying display', must be able to demonstrate sufficient currency of pilot competence, by having flown as a minimum, three complete display routines, within the preceding 90 days of the 'model aircraft flying display', one of which must have been flown within the preceding 30 days, on an aircraft which is reasonably representative of the aircraft to be flown within the display event. (10)A large model aircraft may only take part in a model aircraft flying display, if the LMA has issued a display permit for the model aircraft flying display event. **Note 1:** *If the flying display is conducted within the limits of this Article 16 authorisation, then no further authorisation is required from the CAA. Any display event involving the flight of model aircraft outside the limits of this authorisation (including mass limits, financial renumeration for the UAS operator, or other valuable consideration, height limits or otherwise) must apply for an Operational Authorisation in the Specific Category in accordance with CAP 722 and CAP 722A.* **Note 2:** *The Operation of a model aircraft within a full-sized aircraft flying display event, as permitted under Article 86 of the Air Navigation Order, may require the LMA to issue a permit under section 4.4 (3), in order to adjust the maximum height or distance from assemblies of people within the operational authorisation for the large model aircraft involved.* **Note 3:** *Large model aircraft flying within the display event may only do so if the hold a full Operational Authorisation. Large model aircraft operating under the flight test element of this Article 16 Authorisation (section 4.8(9)) may not participate in such displays.* **Note 4:** *Any 'model aircraft flying display' hosted by an association or organisation that is not the LMA, must also be permitted by the LMA, if it involves the flight of any large model aircraft outside the limits of the operational authorisation. This may be achieved through the issue of a 'joint permit', if hosted by another association.* **Note 5:** *The term 'reasonably representative' in section 4.4(8), in relation to a large model aircraft, refers to an aircraft which is similar in mass, flying characteristics and aircraft type.*

4.5 **Operation of Model Aircraft by non-UK persons**	(1) Non-UK residents may operate model aircraft in accordance with all operating conditions of this authorisation, provided that they meet all the following conditions: a) Hold temporary or full membership of the LMA; b) Comply with the rules and practices of the LMA **Note 1**: *Any non-UK remote pilot must meet the requirements of section 3.12 in respect to pilot competence.* **Note 2:** *Any non-UK UAS operator must comply with the registration requirements set out in 3.5. This may be achieved by displaying the operator ID of a UK 'host' operator, with their agreement and understanding of their legal obligations as a UAS operator of the aircraft.*
4.6 **Operations of Model Aircraft by non-members under instruction**	(1) For the purposes of conducting 'trial flights' by non-members, the non-member may operate the controls of the model aircraft whilst under the direct instruction and supervision of a member. In such an instance, the remote pilot receiving instruction does not need to comply with the competence requirements of set out in section 3.12. (2) The registration requirements and registration display requirements (as set out in section 3.5) still apply.
4.7 **Routine flight above 400ft, for model aircraft greater than 7.5Kg.**	(1) In accordance with section 3.9 (2) (e) (ii) , a model aircraft club may request that, for their specific flying site, the mass limit of 7.5Kg is increased. (2) The club must submit rationale and a safety case to the LMA for consideration, in line with the LMA procedures. (3) The LMA may increase the mass limit for suitable flying sites where appropriate, necessary and safe to do so by issuing a permit to the club. (4) Such a permit will activate section 3.9 (2) (e) (ii) of this authorisation. (5) Any such permit must be reviewed annually. (6) Any records pertaining to such an application, and such a decision, must be held by the LMA. (7) The risk assessment must be available to any member of the subject club, and understood my any member making use of the additional privilege. **Note:** *This de-restriction may only be applied at established model flying sites, as set out in section 3.7 (1).*
4.8 **Operation of Large Model Aircraft**	(1) The operation of a Large Model Aircraft, as defined in section 7.1, under this authorisation is only permitted providing the requirements of this authorisation are met. (2) Any large model aircraft flown must hold a valid certificate of design and construction. (3) The LMA may issue a certificate of design and construction inspection of the aircraft by an LMA inspector and the aircraft meets the requirements. (4) Following completion of the flight test programme, the LMA shall inspect the flight test logs. If these are satisfactory, the LMA may issue a certificate of flight test, which in combination with the certificate of

	design & construction will form a recommendation for issuing a CAA Operational Authorisation. (5) A request for an Operational Authorisation for the Large Model Aircraft shall be submitted to the CAA. (6) On approval, the Operational Authorisation shall be issued to the large model aircraft operator. (7) The operation of any large model aircraft must only be carried out in accordance with the conditions of the Operational Authorisation and this authorisation. **Note 1:** *The following section 4.8(8) sets out the conditions under which the flight test programme may be carried out.* **Flight Test Authorisation** (8) A 'large model aircraft' is permitted to be flown in accordance with this authorisation, for the purpose of flight testing only, subject to the large model aircraft not being flown: a. Within an FRZ, or any other applicable airspace restriction, without appropriate permission. b. At a height exceeding 400ft, unless when being operated at an established club site approved for the operation of model aircraft with a MTOM greater than 7.5Kg above 400ft, testing may be carried out at a height exceeding 400ft. c. At a distance beyond the lesser visual range of the remote pilot, or a maximum range of 500m. d. Unless from a site which is approved for the purpose of test flight operations of large model aircraft by the LMA. e. Within 100m of any uninvolved person, except during take-off and landing, when this distance may be reduced to 50 meters. f. Unless equipped with a mechanism that will cause the aircraft to safely terminate the flight, in the event of disruption to, or a failure of, its C2 Link system, and the remote pilot is satisfied that such mechanisms are in working order before the aircraft commences flight. g. Unless the remote pilot is reasonably satisfied that any load carried by the aircraft is properly secured, that the aircraft is in a suitable condition for safe flight and that the flight can be safely made taking into account the wind and any other weather conditions. h. Unless in accordance with an LMA flight test programme and in the presence of an LMA flight test witness or other LMA approved person. i. Unless the LMA flight test witness or other LMA approved person, and the UAS Operator, assesses the competence of the remote pilot to be sufficient to fly the large model aircraft for the purpose of completing the flight test programme. j. Without a certificate of design and construction issued. k. Unless the aircraft is insured for each and every flight in accordance with Regulation EC 785/2004 on insurance requirements for air carriers and aircraft operators.

	l. Unless all other requirements of this Article 16 Authorisation are met, and any other requirements imposed by the LMA are met. m. For more than 12 months following the date of issue of the certificate of design and construction. n. For any reason other than completing the agreed flight test programme. Following completion of the flight test programme, the aircraft shall only be flown in accordance with an Operational Authorisation. o. As part of any flying display. p. Unless the UAS operator complies with the Operator responsibilities set out in section 3.16, and the following: i. In the event the model aircraft is fitted with a sensor capable of capturing personal data, ensure compliance with regulation (EU) 2016/679. ii. Ensure that any command and control system fitted on the aircraft is suitable for the operation. iii. Ensure that any other personnel involved in the operation, other than remote pilots, are suitably briefed and aware of their own responsibilities. iv. Ensure that the aircraft is flown in accordance with the conditions and limitations of this authorisation. v. Ensure that the requirements of the LMA scheme are followed. vi. Ensure that records are kept of any substantive maintenance activities on the entire aircraft system. vii. Ensure that records of each flight made under this authorisation are maintained and make such records available to the Civil Aviation Authority on request as set out in point UAS.SPEC.090 of Regulation (EU) 2019/947 as retained in UK law.
4.8 **UAS Operator ID Registration**	(1) The LMA may register a UAS Operator with the CAA in accordance with Article 16 (4) of UK Regulation (EU) 2019/947: a. The LMA shall provide the CAA with details of any UAS Operator that wishes to register or revalidate. b. The CAA shall process the details provided by the LMA and issue a unique digital registration number (OP-ID) to the UAS Operator. c. The registration number is valid for a period of 1 year. d. The registrations must be in accordance with the MAIS Specification provided to the LMA by the CAA.
4.9 **UAS Flyer ID Registration**	(1) The LMA may request the issuing of confirmation of theoretical competency from the CAA: a. The LMA shall provide the CAA with theoretical learning material, the online theoretical examination along with the associated procedures and shall be equivalent with the CAA's online theoretical examination. b. The LMA shall provide the CAA with details of any remote pilot who wishes to register or revalidate their competency through the LMA along with proof of successful completion of the 'LMA Theoretical Proficiency Online Test'.

	c. The CAA shall process the details provided by the LMA and issue a confirmation of theoretical competency (Flyer-ID) to the remote pilot. d. The confirmation of theoretical competency is valid for a period of 5 years from date of issue. e. The LMA must maintain and update the LMA learning material and Theoretical Proficiency Online Test in accordance with any relevant legislative or safety related changes and make these changes known to the CAA. f. The registrations must be in accordance with the MAIS Specification provided to the LMA by the CAA.
5	**VALIDITY**
5.1 **Duration of the Authorisation**	This authorisation is valid: **From:** 06/01/2023 **To:** 31/12/2023 Unless otherwise suspended.
5.2 **Regulation references**	**This authorisation is issued under:** UK Regulation (EU) 2019/947 Article 16 **The operation described in section 4.1 is authorised under:** ANO 2016, as amended, article 266. These exemptions are set out in section 8.
5.3 **Combination of Authorisations**	This authorisation may only be used in conjunction with an Operational Authorisation issued to a large model aircraft operator following the LMA over 25Kg scheme, or any General Exemption or General permission issued by the CAA.
6	**AUTHORISATION SIGNATURE**
Signature / Stamp	 Vikas Dangi 2023.01.06 16:22:44 Z **The LMA is authorised to conduct UAS Operations within the limitations and conditions set out within this authorisation, providing they comply with this authorisation, Annex IX to Regulation (EU) 2018/1139 and its implementing rules.**
Date ***DAY/MONTH/YEAR***	06/01/2023

7	APPENDIX
7.1 **Definitions** These definitions are included for the purpose of this specific authorisation only.	1) **Assemblies of People:** *Gatherings where persons are unable to move away due to the density of the people present.* 2) **Automated model aircraft**: *A model aircraft with autonomous or automatic flight capability. This does not include systems which are fitted for flight stabilisation purposes or flight termination purposes, such as free-flight termination devices.* 3) **Built-Up Area:** *An area substantially used for industrial, recreational, commercial or residential purposes.* 4) **Control Line model aircraft**: *A model aircraft that is controlled in flight by one or more lines, attached to a handle, that work the required flight functions. The aircraft is connected to the remote pilot by these lines and so its flight is constrained to the surface of a hemisphere around the remote pilot with a radius equal to the length of the lines.* 5) **First Person View (FPV)**: *In First Person View operations the remote pilot flies the aircraft using images provided by cameras aboard the aircraft. When flying FPV the remote pilot cannot monitor the flight path in relation to other aircraft, persons, vehicles, vessels and structures for the purpose of avoiding collisions to the same extent as a remote pilot maintaining external direct, unaided visual contact with the aircraft.* 6) **Free flight model aircraft**: *A free-flight model aircraft cannot be remotely piloted and does not have software or systems for autonomous control of the flight path. A flight termination device may be fitted. The aircraft trim is adjusted prior to flight. The aircraft is trimmed (and fuelled if applicable) with the intent that it will follow a substantially circular path relative to the air and ultimately glide to a low velocity landing. A free-flight unmanned aircraft will drift relative to the user depending upon the speed and direction of the wind. The person in charge of the free-flight unmanned aircraft is deemed to be the remote pilot for the purposes of this authorisation.* 7) **Large Model Aircraft:** *A model aircraft with a MTOM of 25Kg or greater, and less than 150Kg.* 8) **Maximum Take Off Mass (MTOM):** *MTOM or 'take-off mass' means the mass of the unmanned aircraft when it is ready for flight with all required equipment and batteries installed and all installed fuel tanks full.* 9) **Model aircraft**: *An unmanned aircraft used for sporting and recreational purposes, flown by direct control inputs made by the remote pilot without any autonomous capability other than for flight stabilisation purposes. A model aircraft may be flown under the auspices of an association, or individually.*

Note:
The definition of a model aircraft may include multi-rotor type 'drones'. Any unmanned aircraft being flown in accordance with the definition above is considered a model aircraft. The use of any automation, such as automatic flight modes which alter the position of the aircraft, places the operation outside the definition of a model aircraft, and therefore outside the scope of Article 16. The aircraft must be flown with direct control inputs from the remote pilot.

It is acknowledged that many unmanned aircraft have built in failsafe modes, which may be activated in some instances, for example- loss of control link. Activation of such a mode, although possibly automatic in nature, does not necessarily place the aircraft outside the scope of the definition of a model aircraft.

10) **Model Aircraft Flying Display:**
Any flying activity deliberately performed, by model aircraft, for the purpose of providing an exhibition or entertainment at an advertised event.

11) **Physically constrained model aircraft**:
A model aircraft that:
a. is flying within a closed building or other physical construction forming a safely enclosed area; or
b. is a control-line model aircraft; or
c. is a round-the-pole aircraft.

12) **Round-the-pole model aircraft**:
A model aircraft that is tethered to a fixed point by one or more lines so that its flight is constrained to the surface of a hemisphere around the tether point with a radius equal to the length of the lines.

13) **Small Control Line Model Aircraft**:
(for the purpose of UK Regulation (EU) 2019/947 Article 14)
A fixed-wing unmanned aircraft having a MTOM of not more than 7.5 kg and which is flown within limits imposed by a restraining device of not more than 25 metres in length which attaches the aircraft to the surface or to a person on the surface.

14) **Uninvolved Persons:**
Persons who are not participating in the UAS operation or who are not aware of the instructions and safety precautions given by the UAS operator.

15) **MAIS Specification:**
The integration service developed to allow the model associations to perform registration and renewals.

16) **Slow Pass**
A pass must be slow for that aircraft, and at approximately landing approach speed, but not so slow that loss of control / stall is a significant risk.

8	Air Navigation Order Exemptions
8.1 **Control line and Round-the-pole Model Aircraft: Flight Restriction Zone Exemption**	**Note 1:** *This exemption facilitates section 4.1(1) of this authorisation*. 1) The Civil Aviation Authority (CAA), in exercise of its powers under article 266 of the Air Navigation Order 2016 ('the Order') as amended, exempts the remote pilot and UAS operator of a Control Line model aircraft or a round-the-pole model aircraft, as defined in section 7.1 of this authorisation, from the requirement at article 94A to obtain permission to fly within the flight restricted zone of a protected aerodrome subject to the conditions in paragraphs 2 to 4 below. 2) General requirements: a) The remote pilot (within the meaning given in article 94G of the Order), is: • In the case of a control line model aircraft: the person that is holding the control lines while the Control Line model aircraft is in flight. Or; • In the case of a round-the-pole model aircraft: the remote pilot of the model aircraft. b) The maximum length of the tether line of the control line or round-the-pole model aircraft shall not exceed 25 metres. c) The flight does not take place within the Runway Protection Zone (RPZ) part of the FRZ. d) The maximum take-off mass of the model aircraft shall not exceed 7.5kg, including any batteries, fuel or payloads. 3) The remote pilot shall not fly the aircraft over, or within the boundary of the protected aerodrome unless permission for the flight has been obtained from: a) any air traffic control unit at the protected aerodrome, if the flight, or the part of the flight, takes place during the operational hours of the air traffic control unit; b) any flight information service unit at the protected aerodrome, if the flight, or the part of the flight, takes place during the operational hours of the flight information service unit and either: (i) there is no air traffic control unit at the protected aerodrome,

	or (ii) the flight, or the part of the flight, takes place outside the operational hours of the air traffic control unit at the protected aerodrome; c) from the operator of the protected aerodrome, if: (i) there is neither an air traffic control unit nor a flight information service unit at the protected aerodrome; or (ii) the flight, or the part of the flight, takes place outside the operational hours of any such unit or units at the protected aerodrome. 4) This exemption only applies to control line model aircraft or round-the-pole model aircraft that are flown for the purposes of sport or recreation. It does not apply to 'tethered' flights of small unmanned aircraft that are capable of vertical take-off/landing or hovering, such as helicopters or multi copters. **Note 2:** *This exemption supersedes General Exemption ORS4 1296, which is now revoked. This is now contained within this Article 16 authorisation, and is no longer a general exemption. Compliance with the entire authorisation is necessary to make use of this exemption.*
8.2 **Control line and Round-the-pole Model Aircraft: Registration and Pilot Competence Exemption**	**Note 1:** *This exemption facilitates section 4.1(3) of this authorisation.* 1) The Civil Aviation Authority ('the CAA'), in exercise of its powers under article 266 of the Air Navigation Order 2016 ('the ANO'), exempts any person involved in the flight of a control line model aircraft, or round-the-pole model aircraft (as defined in section 7.1 of this authorisation) from the requirements of article 265E in relation to the flight of such an aircraft. 2) This exemption only applies to the flight of control line model aircraft or round-the-pole model aircraft (as defined in section 7.1 of this authorisation) that are conducted for the purposes of sport or recreation. It does not apply to 'tethered' flights of small unmanned aircraft that are capable of vertical take-off/landing or hovering, such as helicopters or multicopters. 3) This exemption only applies to the flight of control line model aircraft or round-the-pole model aircraft (as defined in section 7.1 of this authorisation) which have a MTOM (as defined in section 7.1 of this authorisation) of not more than 1Kg, and which are flown with a restraining device of not more than 25m.

	Note 2: *This exemption supersedes Official Record Series 4 No.1396, which is revoked. This is now contained within this Article 16 authorisation, and is no longer a general exemption. Compliance with the entire authorisation is necessary to make use of this exemption.* **Note 3:** *The Basic Regulation excludes powered tethered unmanned aircraft with a mass of not more than 1kg from the requirements of the UK Regulation (EU) 2019/947. ANO Article 265E re-applies certain requirements of the UK Regulation (EU) 2019/947 to tethered unmanned aircraft with a mass of not more than 1Kg. This exemption sets out that control line model aircraft and round the pole model aircraft (as defined in section 7.1) are exempt from the requirements of article 265E.*