



Isle of Man
Government
Reillys Ellen Vannin

Isle of Man
CIVIL AVIATION ADMINISTRATION

Consultation

SMALL UNMANNED AIRCRAFT FUTURE SAFETY LEGISLATION

Opening date: 17 June 2019

Closing date: 29 July 2019



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Consultation on small unmanned aircraft

The Isle of Man Civil Aviation Administration (IOM CAA), part of the Department for Enterprise, is the aviation safety and security regulator for the Isle of Man, as well as administering the Isle of Man Aircraft Registry. We are also responsible for ensuring the Island's aviation legislation meets International Civil Aviation Organisation (ICAO) Standards and Recommended Practices and other relevant European aviation standards.

We are in the process of replacing and updating elements of the existing aviation safety legislation and this consultation is part of a wider package covering all aspects of aviation in the Isle of Man and for Isle of Man registered aircraft.

Why we are consulting

Your input will help us make an informed decision on the future aviation safety legislation for small unmanned aircraft (often called 'drones') in the Isle of Man.

Throughout this consultation, we will refer to small unmanned aircraft as "SUA". In some sections we will talk about the "remote pilot" – this is the person who is either flying the SUA manually or monitoring it during automated flight.

Please remember that we are only responsible for aviation safety and security and therefore this consultation **does not** cover privacy or nuisance issues relating to SUA.

This consultation is likely to be of particular interest to:

- multi-rotor "drone" pilots in the Isle of Man
- model aircraft enthusiasts in the Isle of Man
- Isle of Man air traffic services personnel
- commercial flight crews operating in the Isle of Man
- Isle of Man based general aviation pilots

Current situation

The current legislation regulating SUA in the Isle of Man is contained in the Air Navigation (Isle of Man) Order 2015¹. This replicated the SUA provisions in place in the UK at the time. The UK has since introduced additional requirements, particularly for SUA flights near airports. In the Isle of Man, Restriction of Flying Regulations were introduced in early 2019 which prohibit the operation of SUA weighing more than 250g within 5km of Isle of Man Airport unless permitted by the Isle of Man CAA. Further Regulations prohibit the operation of all SUA in the area of Isle of Man Prison. Both of these restrictions will be included in our new legislation.

If the Isle of Man CAA becomes aware of any alleged breaches of SUA legislation, we will take enforcement action in accordance with our [Regulatory Enforcement Policy](#). We have also provided guidance to the Isle of Man Constabulary to highlight the legislative requirements and provide them with guidance in dealing with reports of inappropriate small unmanned aircraft use.

What we have already done

In developing our proposals we have reviewed current and proposed legislation in other countries around the world, including European Union legislation which is expected to be introduced later this year. We have

¹ SI 2015 No 870 as amended by SI 2016 No 155
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also taken account of the nature of current SUA flying in the Isle of Man and any particular safety risks associated with it.

We have met with industry stakeholders to discuss our plans, listening to any concerns or suggestions raised. Following these meetings, we further developed and amended our proposals where we felt that they did not meet the needs of the wider aviation community or sufficiently address the safety risks. The groups we held pre-consultation meetings with are:

- Isle of Man Airport
- current holders of Isle of Man CAA small unmanned aircraft permissions
- Manx Model Flyers

Responding to our consultation

Please submit your responses using the online system wherever possible. If you cannot use the online system, please send your comments by email to caa@gov.im or alternatively by post to:

James Corkhill, Civil Aviation Policy & Technical Support Manager

Isle of Man Civil Aviation Administration
Ground Floor, Viscount House
Isle of Man Airport
Ballasalla
Isle of Man
IM9 2AS

Confidentiality and data protection

The information you send may be published in full or in a summary of responses.

All information in responses, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2015 and the Data Protection Act 2002).

If you want your response to remain confidential, you should explain why confidentiality is necessary and your request will be agreed to only if it is appropriate in the circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding.

If you have a query about how this consultation has been carried out, please contact the Isle of Man Civil Aviation Administration by email at caa@gov.im or by telephone on +44 (0) 1624 682 358.

About you

Please answer the following questions.

1. What is your name?

2. What is your email address?

3. If you are responding on behalf of an organisation, please state which:

4. May we publish your response?
 - Yes, you may publish my response in full
 - Yes, you may publish my response anonymously
 - No, please do not publish my response
5. Would you like us to email you a summary of responses?
 - Yes
 - No
6. Which option best describes your interest in responding to this consultation? (Please select **one**)
 - Multi-rotor SUA flying as a hobby
 - Model aircraft flying as a hobby
 - Commercial SUA flying (current)
 - Commercial SUA flying (planning a new business)
 - Airline pilot/other airline personnel
 - Private/general aviation pilot
 - Air traffic control officer (ATCO)
 - Other (please specify):

Overview of SUA legislation proposals

Legislative basis

In this consultation we will set out our proposals for the future safety legislation governing the operation of SUA in the Isle of Man. These will be enacted in an Order made under Section 11B of the Airports and Civil Aviation Act 1987 and will replace the current SUA requirements published within the Air Navigation (Isle of Man) Order 2015. Any permissions issued under that Order will be assessed and reissued as necessary to meet the new requirements.

Aims

Our aim with these proposals is to ensure that we appropriately address the safety risks posed by small unmanned aircraft to other aviation activities and the general public. We have tried to design the requirements so that they are:

- reasonable
- easy to understand
- straightforward to apply
- proportionate to the safety risks in the Isle of Man

What is a small unmanned aircraft?

Currently a small unmanned aircraft ('SUA') is any aircraft which does not have a pilot on board and which weighs less than 20kg including any batteries, cameras and other equipment but not including any combustible fuel it may use. Under our new proposals, any unmanned aircraft weighing between 250g and 25kg (again including any batteries, cameras and other equipment but not including any combustible fuel) will be classed as SUA. This may be a multi-rotor type aircraft (often known as a "drone") or a more traditional radio-controlled model aircraft.

SUA under 250g are readily available at a low cost, often in toy shops. Their small size and relatively low speed mean that they do not pose a significant safety risk. Therefore we do not intend to regulate them with this proposed legislation². This policy is similar to that of many other countries around the world.

Unmanned aircraft over 25kg will be treated the same as manned aircraft. However, as per our current policy, if an unmanned aircraft is only slightly over the upper weight limit, we may occasionally issue an exemption to the legislation so that we can treat it the same as a SUA. We would only do this after a detailed case-by-case safety assessment and would impose additional conditions on the aircraft's flight to ensure public safety.

The current legislation treats SUA that have a camera differently to those that do not. However, this distinction is not made in other countries. We are therefore proposing to harmonise the regulations for all types of SUA, so that we can apply the rules fairly and consistently, purely on the basis of weight and the consequent safety risk.

Please remember that we are only responsible for aviation safety and security and therefore this consultation **does not** cover privacy or nuisance issues relating to SUA.

² Other than for flight within the Restriction of Flying at Isle of Man Prison which also applies to SUA less than 250g.
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Permissions

There are some activities mentioned in the consultation which will require our explicit permission. We believe that this is necessary so that we don't unfairly restrict legitimate SUA use; but we must ensure appropriate safeguards are in place for higher risk activities. This is essentially the same as our current policy, although some of the activities that require permission will change.

We anticipate the process of issuing permissions to remain largely as it is now. Before we issue any permission to a remote pilot, we undertake checks on their competence in the areas of theoretical knowledge, general airmanship and practical flying ability. We also make sure that the remote pilot has third-party liability insurance cover. Finally, we review the remote pilot's operations manual to make sure that they will undertake appropriate safety risk management and follow appropriate procedures to minimise the identified risks to other aviation and the public while flying their SUA.

Commercial operations

Under the existing legislation, people who want to fly their SUA for commercial purposes, for example to take photographs to sell, must have permission from the Isle of Man CAA (known as 'Permission for Aerial Work'). However, we do not think that there should be any difference in the safety requirements for a commercial SUA flight and an otherwise identical recreational one. Therefore we intend to remove the need to apply for permission for commercial operations.

Consider the scenario of a remote pilot flying their SUA to take photographs of the Point of Ayre for their hobby. They must ensure that they fly their aircraft safely and that it stays an appropriate distance from buildings, vehicles and people. Now consider a commercial photographer undertaking the same flight, following the same conditions, with the same type of aircraft. The only difference is that they intend to sell the photograph or publish it in a book. Therefore, it doesn't make sense that one pilot needs permission but the other does not.

This proposal is also in line with new regulations that will take effect in the European Union later this year.

Penalties

Many of the proposed provisions carry a penalty for a remote pilot who breaches them. It is worth remembering that in any specific circumstances more than one offence may have been committed. For example a remote pilot flying a SUA in Castletown and coming close to an airliner landing at the airport would have broken the rule about not flying near the airport and the rule about not flying over a residential area. They may also have broken the rule about not endangering an aircraft.

Potential future developments

The situation pertaining to the operation of SUA and the associated legislation being put in place by countries around the world is rapidly evolving.

The existing Isle of Man legislation does not require SUA to be registered. Some countries are currently exploring the registration of SUA. Later this year, the UK will be introducing a scheme to register anyone who operates a SUA and is likely to charge an annual fee for this registration. The UK also plans to introduce competency testing for all remote pilots. However, we feel that the impact from registration in terms of cost and administration is not yet proven to be proportionate to the anticipated safety benefits that maintaining a register and running a competency scheme would bring to the Isle of Man.

We will continue to monitor global developments and may propose further developments to Isle of Man legislation if changes in the way SUA are operated makes it necessary.

7. Please add any other comments on this parts of the proposal here:

Basic safety rules

A small unmanned aircraft must not endanger a person, property or other aircraft

This rule is the same as the existing legislation and ensures that people flying SUA do so safely at all times.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £10,000
- on conviction on information, a fine or custody for a term not exceeding five years or both

8. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

9. Please explain your reasoning and add any other comments on this part of the proposal here:

A small unmanned aircraft must always avoid other aircraft

This is a new provision that requires the remote pilot to avoid other aircraft. This is an essential part of the regulations to make sure that SUA do not endanger other aviation activities, e.g. airline transport, pilot training or recreational glider flying.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £10,000
- on conviction on information, a fine or custody for a term not exceeding five years or both

10. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

11. Please explain your reasoning and add any other comments on this part of the proposal here:

You must not fly a small unmanned aircraft at night unless you have permission from the Isle of Man CAA

This is a new provision to prohibit the use of SUA at night, as it is difficult to assess the risk of collision with obstacles and other aircraft during the hours of darkness, regardless of how well lit and visible the SUA itself may be.

The particular safety risks of operating at night depend on the nature of the specific location chosen, the degree of pre-flight planning and site assessment undertaken, operational procedures put in place and the competence of the remote pilot.

For some situations it may be beneficial to fly at night, e.g. to film an event. We will be able to permit this type of flying where there is a good reason to do so, and the remote pilot can demonstrate that they have the competence to conduct the flight safely.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £5,000

12. Remote pilots should not be able to fly SUA at night:

- Agree
- Disagree

13. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

14. Please explain your reasoning and add any other comments on this part of the proposal here:

You must not fly more than one small unmanned aircraft at a time

This is a new provision to restrict the remote pilot of a SUA to fly only a single aircraft at any one time so that they can properly monitor the flight to avoid collisions. It also means that they will be better able to deal with any perceived risk, as they will only be handling one set of controls.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £5,000

15. A remote pilot should only be able to fly one SUA at a time

- Agree
- Disagree

16. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

17. Please explain your reasoning and add any other comments on this part of the proposal here:

You must not drop anything from a small unmanned aircraft if it would endanger persons or property on the ground

This is similar to the existing provisions and ensures that anyone dropping items from a SUA does so safely. Examples may include spraying fertiliser on crops or dropping leaflets to promote an event.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £5,000

18. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

19. Please explain your reasoning and add any other comments on this part of the proposal here:

You must not fly a small unmanned aircraft with a maximum take-off mass of 4 kilograms or more unless you have permission from the Isle of Man CAA

This is a new provision to control the use of heavier small unmanned aircraft which consequently pose a greater safety risk to the public. The restriction will apply to all SUA, regardless of the purpose or location of the flight. This policy is broadly in line with other European countries, which are beginning to regulate SUA based on weight categories.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £5,000

20. Flying heavier SUA should require to IOM CAA permission

- Agree
- Disagree

21. What do you think about the proposed cut-off at 4 kg?

- Too light
- About right
- Too heavy

22. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

23. Please explain your reasoning and add any other comments about this part of the proposal here:

Avoiding collisions

You must maintain direct, unaided visual contact with your small unmanned aircraft at all times while it is in flight unless have permission from the Isle of Man CAA

This provision is similar to the existing provisions and ensures that the remote pilot continuously monitors the SUA by direct vision to ensure that it flies safely and avoids collisions. The remote pilot may not use binoculars or zoom lenses, but glasses or contact lenses are acceptable. An exception to this provision will be made for flying 'first-person-view' when an observer monitors the aircraft on behalf of the remote pilot – see the next section for more details.

For some situations it may be beneficial to fly beyond the remote pilot's visual line of sight, e.g. police searching for a missing person. We will be able to permit this type of flying where there is a good reason to do so, and the remote pilot can demonstrate that they have the competence to conduct the flight safely.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £10,000
- on conviction on information, a fine or custody for a term not exceeding two years or both

24. The remote pilot of a SUA should be required to keep the aircraft in their sight at all times

- Agree
- Disagree

25. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

26. Please explain your reasoning and add any other comments about this part of the proposal here:

You may fly a small unmanned aircraft using first-person-view ('FPV') but you must have a competent observer next to you who maintains a lookout for aircraft and other hazards

This is a new exception to the visual contact rule to permit remote pilots to fly a SUA using a technique called 'first-person-view', also known as 'FPV'. When flying this way, the pilot uses either virtual reality type goggles or some other screen that displays the view from a camera fitted to the aircraft. Flying in this way means that the remote pilot is not able to maintain direct, unaided visual contact with the aircraft in order to monitor the wider area and hazards that may be outside the field of vision using FPV. The proposal therefore includes a requirement for an observer to fulfil this responsibility on the remote pilot's behalf and monitor the SUA for the duration of the first-person-view flight. The observer must remain next to the remote pilot and advise them on action they need to take to conduct the flight safely. The remote pilot will be responsible for ensuring that the observer is competent to give this advice.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £10,000
- on conviction on information, a fine or custody for a term not exceeding two years or both

27. Should 'first-person-view' flying be allowed if an observer located next to the remote pilot monitors the SUA visually and warns the remote pilot of any hazards?

Yes

No

28. What do you think about the proposed penalty?

Not strong enough

About right

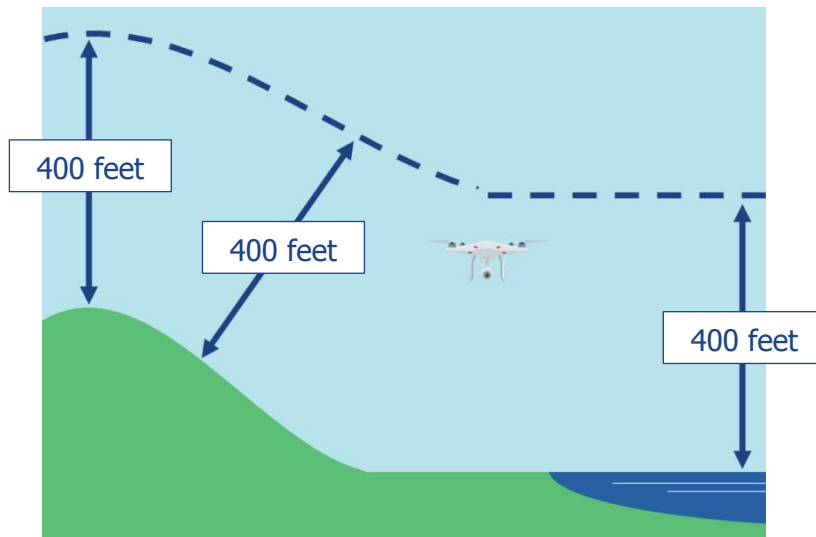
Too severe

29. Please explain your reasoning and add any other comments about this part of the proposal here:

Maximum height and distance from remote pilot

You must not fly a SUA at more than 400 feet away from the surface of the earth unless you have permission from the Isle of Man CAA

This new provision is similar to that introduced in the UK during the summer of 2016. Most, but not all, manned aviation activity happens at more than 500 feet above the ground, so restricting SUA to a maximum distance of 400 feet from the surface (as indicated in the diagram below) reduces the risk of collision with another aircraft.



For some situations it may be beneficial to fly above 400 feet, e.g. in support of emergency services operations. We will be able to permit this type of flying where there is a good reason to do so, and the remote pilot can demonstrate that they have the competence to conduct the flight safely.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £10,000
- on conviction on information, a fine or custody for a term not exceeding two years or both

30. Remote pilots should not be able to fly their SUA above a certain height

- Agree
- Disagree

31. What do you think of the proposed maximum distance of 400 feet away from the surface?

- Not high enough
- About right
- Too high

32. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

33. Please explain your reasoning and add any comments about this part of the proposal here:

You must not fly a small unmanned aircraft at a distance of more than 500 metres away from you unless you have permission from the Isle of Man CAA

This is a new provision that limits the maximum distance at which a remote pilot may fly a SUA. This is to ensure that the remote pilot can adequately monitor the flight to ensure the SUA avoids collisions. For some situations it may be beneficial to fly beyond 500m, e.g. in support of emergency services operations. We will be able to permit this type of flying where there is a good reason to do so, and the remote pilot can demonstrate that they have the competence to conduct the flight safely.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £10,000
- on conviction on information, a fine or custody for a term not exceeding two years or both

34. Remote pilots should have to keep their SUA flights within a certain distance of their position

- Agree
- Disagree

35. What do you think of the proposed maximum distance of 500m?

- Not far enough
- About right
- Too far

36. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

37. Please explain your reasoning and add any other comments about this part of the proposal here:

Flying near buildings and people

You must not fly a small unmanned aircraft over or within 150m of a substantially residential, industrial or recreational area unless you have permission from the Isle of Man CAA

This provision exists in the current Air Navigation Order with regard to flight in a 'congested area' and mirrors the UK requirement. This is in place to address the increased safety risks from flying in such areas. How busy the area is with people or traffic at the time of the flight doesn't matter, the rule always applies

for places substantially used for residential, industrial or recreational purposes. This includes housing estates, business parks and golf courses among many other areas.

For some situations it may be beneficial to fly within these areas, e.g. when conducting building surveys. We will be able to permit this type of flying where there is a good reason to do so, and the remote pilot can demonstrate that they have the competence to conduct the flight safely.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £10,000
- on conviction on information, a fine or custody for a term not exceeding two years or both

38. Remote pilots should not be able to fly their SUA near substantially residential, industrial or recreational areas

- Agree
- Disagree (please add why in comments below)

39. What do you think of the 150m buffer zone?

- Not big enough (please add why in comments below)
- About right
- Too big (please add why in comments below)

40. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

41. Please explain your reasoning and add any comments about this part of the proposal here:

You must not fly a small unmanned aircraft over or within 150m of an organised open-air assembly of more than 1000 people

This rule exists in the current Air Navigation Order and mirrors the UK requirements, and prevents SUA from causing danger to large groups of people.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £10,000
- on conviction on information, a fine or custody for a term not exceeding two years or both

42. What do you think of the 150m buffer zone?

- Not big enough
- About right
- Too big

43. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

44. Please explain your reasoning and add any other comments about this part of the proposal here:

You must not fly a small unmanned aircraft within 50 metres of a vessel, vehicle or structure that is not under your control unless you have permission from the Isle of Man CAA

This provision exists in the current Air Navigation Order and mirrors the UK requirement. A remote pilot could consider a vessel, vehicle or structure to be under their control if they were able to influence it in such a way as to avoid collisions with the SUA, for example by briefing a driver of a vehicle on the intended operation of the aircraft or obtaining agreement from a building manager to keep doors and windows closed for the duration of the flight.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £10,000
- on conviction on information, a fine or custody for a term not exceeding two years or both

45. What do you think of the proposed minimum distance of 50m?

- Too close
- About right
- Too restrictive

46. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

47. Please explain your reasoning and add any other comments on this part of the proposal here:

You must not fly a small unmanned aircraft within 50 metres of a person not under your control, except during taking-off or landing, when you may not fly within 30 metres of such a person, unless you have permission from the Isle of Man CAA

This provision exists in the current Air Navigation Order and mirrors the UK requirement. A remote pilot could consider a person to be under their control if they were able to influence them in such a way as to avoid collisions with the SUA, for example by briefing them on the intended operation of the aircraft. The reduced distance during take-off and landing takes into account the slower speed of the SUA during these operations.

Proposed penalty for breaking this rule:

- on summary conviction, a fine not exceeding £10,000
- on conviction on information, a fine or custody for a term not exceeding two years or both

48. Do you think 50m is an acceptable distance from uninvolved people during flight?

- Too close
- About right
- Too restrictive

49. Do you think 30m is an acceptable distance from uninvolved people during take-off and landing?

- Too close
- About right
- Too restrictive

50. What do you think about the proposed penalty?

- Not strong enough
- About right
- Too severe

51. Please explain your reasoning and add any other comments about this part of the proposal here:

Other suggestions

We have covered all the changes to the SUA legislation that we propose to make. If there is anything that you think we have missed, then please tell us about it here.

52. Do you have any other suggestions that were not covered in the consultation material?

What happens next?

Thank you for submitting your response to our consultation on small unmanned aircraft, which we will consider when finalising our legislation. We may contact you using the details you provided if we require further information about your responses. After the consultation closes, we will analyse the results and publish a summary of the responses on the Isle of Man Government's Consultation Hub website.