

Small unmanned aircraft

Guidance for operators of small unmanned aircraft in the Isle of Man



CP4

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Isle of Man
CIVIL AVIATION ADMINISTRATION

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Table of Contents

Table of Contents.....	3
Revision history.....	3
1. Overview	4
2. Basic principles.....	4
3. Legislation	5
4. SUA less than 250g maximum take-off mass.....	8
5. Airspace restrictions and hazards.....	9
6. Permissions	11
7. Insurance.....	12
8. Abnormal and emergency situations.....	12
9. Safety concerns.....	14
10. Privacy and landowner concerns	15
Annex A: Isle of Man Airport airspace restriction	16
Annex B: Isle of Man Prison airspace restriction	17
Annex C: TT/MGP airspace restriction.....	18

Revision history

Version	Date	Details
1	November 2016	Initial issue
2	April 2018	Editorial corrections
3	December 2018	Inclusion of airport and prison restrictions
4	March 2019	General update
5	November 2020	Complete update to reference the requirements of the Civil Aviation (Small Unmanned Aircraft) Order 2020
6	29 April 2024	Section 2.5 added for guidance on commercial operations Additional guidance included in section 3.6 Update to section 5 to reflect changes to TT airspace Minor editorial corrections throughout

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1. Overview

Unmanned aircraft, often known as drones, come in a variety of shapes and sizes from very small toys up to full-size aircraft; this publication aims to offer guidance to operators of **small unmanned aircraft**. It may also be of use to members of the public with an interest in unmanned aircraft.

Small unmanned aircraft are defined as those whose maximum take-off mass is not more than 25kg. This includes multi-rotor and fixed wing, as well as traditional radio-controlled model aeroplanes and helicopters. Throughout this publication we will use the term SUA to mean any of the various types of small unmanned aircraft.

The Isle of Man Civil Aviation Administration (IOM CAA) is the aviation safety and security regulator for the Isle of Man. The legislation most relevant to SUA is the Civil Aviation (Small Unmanned Aircraft) Order 2020¹; more details of this are contained in the relevant sections below. You can find more information about the IOM CAA on our website <https://www.gov.im/caa>.

2. Basic principles

If you are flying a SUA, you must always do so safely. Like any aircraft, SUA can pose a hazard to other aircraft and also to people and property on the ground. It is your responsibility to be aware of the rules that are designed to keep everyone safe. Please note that the UK and EU SUA regulations do not apply on the Isle of Man. The legislation, and the guidelines in this document, are intended to enable the safe use of SUA in the Island.

2.1 Be SUA safe

- Always keep your SUA in sight. This means you can see and avoid other aircraft and obstacles on the ground while flying.
- Don't fly your SUA at night as it can be very difficult to monitor your SUA flight properly so that you can avoid collisions.
- Don't fly your SUA over 400 feet above the ground. This reduces the chance of a conflict with a manned aircraft.
- Don't fly your SUA over or within 150m of a substantially residential, industrial, commercial or recreational area.
- Don't fly your SUA over or within 150m of an organised open-air assembly of more than 1000 people.
- Make sure you stay the right distance from people and property on the ground. You must not fly closer than 50m to people and properties (30m from people during take-off and landing).
- Don't fly your SUA within 5km of the Isle of Man Airport, unless you have permission.

¹ SD No. 2020/0135

2.2 Be SUA aware

- Always follow the manufacturer's instructions when you fly your SUA to keep yourself and the people around you safe.
- Make sure you have permission from the landowner before you fly your SUA.
- Be aware of the effect your SUA may have on any nearby wildlife. You must not disturb any wildlife, including birds and their nests. Certain species are protected by the Wildlife Act 1990 and byelaws are in place in some areas, for example the Ayres National Nature Reserve. More information is available from the Department of Environment, Food and Agriculture: <https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/ecosystem-policy-and-energy/wildlife-biodiversity-and-protected-sites/>
- Be aware of people's right relating to privacy. More information is available from the Isle of Man Information Commissioner: <https://www.inforights.im/>

2.3 Be SUA legal

- Remember you are responsible for each flight and failure to fly responsibly could result in criminal prosecution. Stay well away from aircraft and airfields.
- It is against the law to fly your SUA within 5km of the Isle of Man Airport unless you have permission from the Isle of Man CAA.
- It is against the law to fly your SUA over any part of the Isle of Man Prison at Jurby.
- If your SUA endangers the safety of an aircraft it is a criminal offence and you could go to prison.

2.4 Safety apps

There are many smartphone/tablet apps available to assist with flying your SUA safely. These can display an interactive map of the airspace used predominantly by commercial air traffic (controlled airspace) and ground hazards that may pose safety risks to your flight. Remember that there may be hazards or restrictions which are not shown, and many aircraft of various sizes and types operate outside controlled airspace. You remain responsible for ensuring the safety of your flight.

2.5 Commercial operations

There are no specific requirements relating to operating a small unmanned aircraft commercially. This means that you do not need a specific permission to receive payment for an SUA flight or the product of a flight, e.g. video or photograph. However, you must conform to all the requirements set out in this document and may find you need to obtain one or more permissions to fly in particular circumstances e.g. if you plan to fly in a residential area or at night.

You are responsible for flying your SUA safely and may be prosecuted if you don't.

3. Legislation

The law in the Isle of Man regarding the operation of SUA is contained in the Civil Aviation (Small Unmanned Aircraft) Order 2020, which is sometimes referred to as the SUA Order. The statutory requirements and amplifying guidance are set out below, but Courts of Law will refer only to the source regulatory material, which is available from the [document library on our website](#).

3.1 Definitions

The Civil Aviation (Miscellaneous Provisions) Order 2020² contains the definitions of terms used in the SUA order:

Small unmanned aircraft means any unmanned aircraft, other than a balloon or a kite, having a mass of not more than 25 kilograms without its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight.

Remote pilot, in relation to a small unmanned aircraft, is an individual who –

- (a) operates the flight controls of the small unmanned aircraft by manual use of remote controls; or
- (b) when the small unmanned aircraft is flying automatically, monitors its course and is able to intervene and change its course by operating its flight controls.

Some articles contain a requirement to obtain a permission; further information about this can be found in [Section 6](#). The remote pilot of the SUA is responsible for the safety of any SUA flight and is liable to prosecution if they fail to comply with the requirements of the SUA Order.

3.2 Application of legislation

The SUA Order applies to SUA between 250g and 25kg. Guidance on the operation of SUA with a maximum take-off mass of less than 250g is at [Section 4](#).

The Order does not apply to SUA flown indoors where there is no possibility of escape into the open air. For example, the order would not apply to SUA being flown inside a sports hall as long as the fire exits, windows etc. were closed but would apply inside an aircraft hangar with the doors open.

3.3 General requirements

You must not endanger a person, property or aircraft with an SUA and you must not fly your SUA unless you are satisfied that the flight can be completed safely. Even if you are flying using an automated mode, you must still monitor the aircraft and be ready to take control in the event of a collision hazard becoming apparent or any problems arising. More information about handling SUA abnormal situations and emergencies can be found in [Section 5](#).

The article also prohibits SUA flight at night unless you have permission from the Isle of Man CAA. This is because it can be difficult to monitor the airspace around a SUA for obstacles, especially overhead wires, during the hours of darkness. Night is defined as the time from half an hour after sunset until half an hour before sunrise.

So that you can properly pay attention to controlling your SUA and monitor its flight path, you may not fly more than one SUA at a time. You must ensure that any articles attached to your SUA, for example cameras or other payloads, are fitted securely as anything which falls during flight may endanger persons or property on the ground.

3.4 Take-off mass

You must not fly an SUA with a maximum take-off mass (MTOM) of 4kg or more unless you have obtained permission from the Isle of Man CAA. This is because the larger mass of these aircraft poses a greater

² SD No. 2020/0134

safety risk to persons on the ground. The MTOM may be more than the mass of the aircraft when weighed, especially if it is designed to carry an interchangeable payload. You should check the instruction manual or owner's handbook to find out the MTOM of your SUA.

3.5 Rights of way

SUA remote pilots must avoid manned aircraft at all times. If you are flying your SUA and you encounter a manned aircraft, it is your responsibility to manoeuvre your SUA away from the other aircraft in order to avoid a collision. Although most manned aviation takes place at more than 500 feet above the surface, it is possible that helicopters or light aircraft may be operating below this level and their flight paths may be unpredictable. Due to the size of SUA, it is unlikely that the pilot of the other aircraft will see your SUA until they are in very close proximity. Often, the safest course of action will be for you to land the SUA until the other aircraft has left the area.

Although the Isle of Man CAA may issue a permission in relation to this article, it is anticipated that this will only be used for specialist operations in segregated airspace where the risk of collision with other aircraft is minimal.

3.6 VLOS and FPV

You must keep your SUA in direct visual line of sight (known as VLOS) at all times during flight. You must be able to see the SUA clearly so that you can monitor the airspace around its flight path and so manoeuvre it away from anything it may collide with, for example other aircraft, people, buildings or vehicles. You must not use binoculars or other optical instruments to observe the aircraft, but glasses or contact lenses are acceptable.

Being able to control your SUA within visual line of sight relies on keeping it within a suitable distance. This distance may vary on each flight and depends on a number of factors, including:

- your visual acuity;
- the size of the SUA (and how conspicuous it is);
- any navigation lighting fitted to the SUA;
- the weather conditions (fog, clouds, glare etc.);
- terrain and other obstacles which may obscure your view of the SUA.

You should be able to identify the point at which you can no longer maintain VLOS. Remember that just because the SUA is still visible does not mean that it meets the definition of VLOS: you must be able to determine the SUA's orientation at all times.

First-person-view (FPV) flying, where the remote pilot uses goggles or a screen to monitor a pilot's eye view from a camera on the SUA is permitted as long as a competent observer who maintains visual contact with the SUA accompanies the remote pilot. The observer must stay next to the remote pilot to advise them of any collision hazards to keep the flight safe; they must not be in another location. The remote pilot must also ensure that the observer is briefed on the planned flight and what is expected of them, including what action to take if the SUA is at risk of collision or if the SUA is proceeding to a point where VLOS cannot be maintained.

3.7 Geographical restrictions

SUA flight within 5km of the Isle of Man Airport is prohibited; more details can be found in [Section 5](#) of this document.

3.8 Vertical restrictions

You must not fly your SUA more than 400 feet (approximately 120 metres) above the ground (or sea) which is directly below it. You should be especially careful if flying in hilly or undulating areas as the 400 feet limit follows the contours of the terrain. This is because the majority of manned aviation takes place above 500 feet and so the risk of a collision is reduced if the SUA is flown at lower levels. However you must still be prepared to encounter manned aircraft, particularly light aircraft and helicopters, and prepared to give way to them.

3.9 Lateral restrictions

You must only fly your SUA where it is safe to do so. This article contains several restrictions on the areas in which you can fly an SUA and the distances from people, buildings etc. These requirements are intended to protect members of the public from any potential SUA hazard.

You must not fly a SUA over or within 150m of a substantially residential, industrial, commercial or recreational area unless you have permission from the Isle of Man CAA. This means that you cannot fly your SUA in built up areas, parks, sports venues or industrial estates amongst other places.

There is also a prohibition on flying SUA over or within 150m of an organised open-air assembly of more than 1000 people.

You must not fly a SUA within 50m of a person, vessel, vehicle or structure which is not under your control except during take-off and landing, when you must remain at least 30m away from persons. A structure could be a building, bridge, dam, overhead wire, or streetlamp amongst other things. Vessel includes all craft from kayaks to cruise liners and tankers.

To consider a vessel, vehicle or structure under your control, we would expect you to come to an agreement with the owner or manager to ensure that the flight can be conducted safely. Likewise, a person could be considered to be under your control if they have agreed to follow any instructions you may give on safety grounds. This may be because they are involved in the SUA operation (perhaps payload operators or other crew members), or are present for the purpose of the flight (perhaps actors being filmed). You may also need to bring members of the public under your control for example by asking them to remain outside a particular area.

3.10 Permissions

This article sets out the requirements relating to permissions; more details can be found in [Section 6](#).

4. SUA less than 250g maximum take-off mass

SUA which have a maximum take-off mass of less than 250g (sub-250g SUA) are not subject to the requirements of the SUA order. This is the case in many countries around the world and manufacturers are now producing SUA which come in just under this limit, with capabilities improving all the time.

Although the risks posed by such SUA are lower than those of larger aircraft, the remote pilot is still responsible for flying safely. Although the SUA order itself does not apply, other aviation legislation³ means that remote pilots of sub-250g SUA must ensure that their aircraft does not endanger an aircraft, person or property.

³ Air Navigation (Isle of Man) Order 2015 SI 2015 No. 870 as amended

Airspace restrictions, which may be in force from time to time, routinely apply to sub-250g SUA; further details can be found in [Section 5](#).

5. Airspace restrictions and hazards

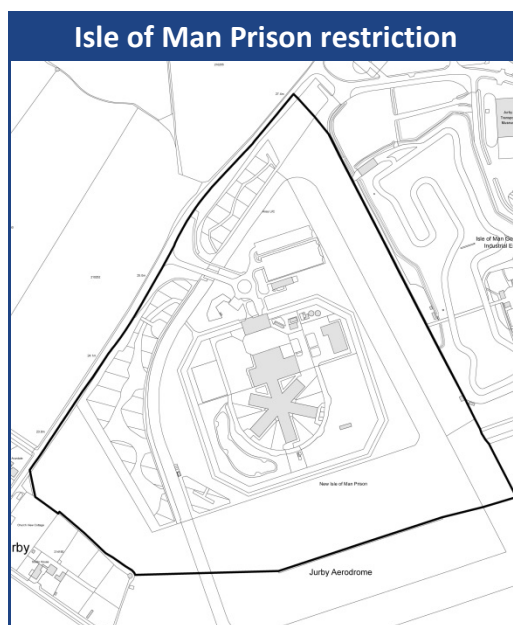
5.1 Isle of Man Airport

SUA between 250g and 25kg are prohibited from being flown within 5km of the Isle of Man Airport unless permitted by the Isle of Man CAA. The area covered by the restriction can be seen on the map below. For a bigger version, see [Annex A](#).



5.2 Isle of Man Prison

The Air Navigation (Restriction of Flying) (Isle of Man Prison) Regulations 2018 prohibit **any** SUA being flown within area outlined by a thick black line on the map below. For a bigger version, see [Annex B](#).



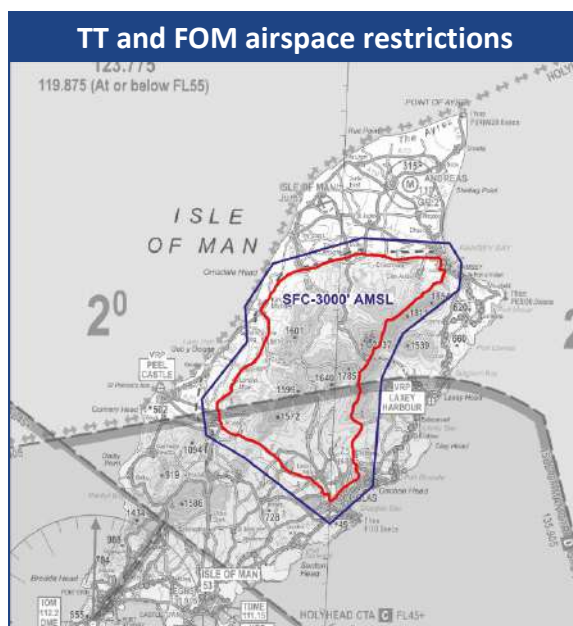
5.3 Temporary airspace restrictions – Isle of Man TT and Festival of Motorcycling

In order to protect the helicopter air ambulances, we establish airspace restrictions around the race course for both the TT and Manx Grand Prix.

These restrictions cover the entire TT course, the area inside it, as well as a buffer zone outside it, as shown on the chart below. A larger scale chart can be found in [Annex C](#), along with the coordinates of the points which define the restricted airspace.

They prohibit flight by aircraft, including SUA, except those operating with IOM CAA permission e.g. the official air ambulance and filming aircraft. The regulations are in force for each practice and race session, including any additional sessions that may be scheduled, for the entire time the roads are closed.

Specific details can be found in AICs (Aeronautical Information Circulars) or NOTAMs (Notices to Aviation) which are available through the NATS AIS website <http://www.nats-uk.ead-it.com/public/index.php.html> (free registration required).



5.4 Other temporary restrictions

We may need to implement other airspace restrictions from time to time, including potentially at short notice due to an emergency that has arisen. This may be for a variety of reasons including the Tynwald Day celebrations at St John's or air displays, e.g. by the Red Arrows.

We will publish details of these through AICs (Aeronautical Information Circulars) or NOTAMs (Notices to Airmen) which are available through the NATS AIS website (free registration required): <http://www.nats-uk.ead-it.com/public/index.php.html>.

5.5 Jurby Airfield

We advise that you should not fly your SUA near to Jurby airfield and especially not in the areas near the runway ends where aircraft may be approaching to land or climbing away. Jurby airfield is often used by model aircraft flyers: for more information visit the Manx Model Flyers website <http://www.manx-modelflyers.org/>. You should also be aware of the airspace restrictions around the Isle of Man Prison which occupies part of the airfield site.



5.6 Andreas Airfield

We advise that you should not fly your SUA near to Andreas airfield and especially not in the areas near the runway ends where aircraft may be approaching to land or climbing away. Andreas airfield is often used by powered light aircraft and gliders: for more information visit the Andreas Gliding Club website <http://www.manxgliding.org/>.



6. Permissions

Certain SUA flying activities require permission from the Isle of Man CAA.

If you are unsure if your planned flight needs permission, please contact us beforehand to check. We can issue permissions for specific activities or events, or annual permissions where that would be beneficial.

Permissions issued by the UK CAA (or other aviation authority) are not valid in the Isle of Man and you must apply separately to the Isle of Man CAA. You should check your Isle of Man permission carefully as the conditions may be different from permissions issued elsewhere.

We may be able to apply discretion in some of the requirements mentioned below. If you hold a pilot or air traffic controller licence, you may be able to demonstrate adequate theoretical knowledge and general airmanship without specific training. Likewise, relevant SUA flying experience may be considered instead of a practical flight assessment.

6.1 How to apply for permission

Application forms can be downloaded from our website <https://www.gov.im/caa>. You will need to provide an acceptable safety case which demonstrates that you have addressed any relevant safety risks and that you are competent to make the flight, including adequate theoretical knowledge and practical flying experience. You must also develop operational procedures pertinent to the risks of the flight, and we may ask to see these in advance.

Due to the range of activities requiring permissions and the different types of training available to SUA remote pilots, it is not possible to provide definitive guidance for all circumstances in this document. If you are considering attending an SUA qualification in order to obtain Isle of Man CAA permissions, we strongly recommend that you contact caa@gov.im to discuss the suitability of your intended training.

6.2 Qualifications from UK Regulated Assessment Entities

Under the new UK/EASA system, there are two qualifications available to remote pilots: the A2 Certificate of Competence (A2CofC) and the General VLOS Certificate (GVC). The A2CofC is primarily intended to assure safe operations of lower weight SUA close to uninvolved persons, whereas the GVC is a more general qualification suitable for many visual-line-of-sight operations.

The Isle of Man CAA deems the A2CofC to be an acceptable demonstration of remote pilot competence in support of permissions for flying for SUA of less than 4kg and displaying the C2 category marking (or legacy SUA of less than 2kg) in residential, recreational, industrial and commercial areas (previously referred to as congested areas). Additionally, it may be used to support an application for reduced distances, to a minimum of 30m from persons, vessels, vehicles and structures. For any other permissions required by the new Order, a GVC should be considered as the minimum standard but we would advise contacting us to check suitability before commencing training towards a particular qualification.

7. Insurance

We strongly recommend that you take out appropriate insurance prior to your flight. Both annual and pay-as-you-fly policies are available; these often provide cover for your SUA and third party liability. Remember that if you need to make a claim and it is found that you have not complied with the requirements of SUA Order, your insurer may be unwilling to honour your policy.

8. Abnormal and emergency situations

The requirement to ensure that your SUA flights can safely be made includes your ability to identify and respond to unexpected in-flight emergencies. In this section, the term 'emergency' includes any abnormal operations, unusual circumstances or in-flight failures.

Familiarity with any visual and audible warnings that your SUA may produce will help you identify abnormal operations or in-flight failures. You should also ensure that you know how to use any automation designed to assist in emergency situations, e.g. return to home function, and are aware of their limitations.

If your SUA experiences an unexplained loss of control you are very strongly advised not to fly another SUA in the same operational environment unless it is absolutely necessary.

8.1 Designing procedures for responding to emergencies

The ability to identify and respond correctly to emergencies is an implicit part of remote pilot competence and should be practiced regularly. All SUA pilots should know how to deal with emergencies, and appropriate procedures should be included in operations manuals, where these are produced.

Good procedures will maximise the ability of the remote pilot to identify the emergency by describing symptoms, detailing how the loss of one system impacts on others and explaining how third party applications used to control the SUA may help or obstruct the identification of emergencies. They should then enable the remote pilot to deal with the situation correctly by describing what intervention is needed, ensuring that processes are practiced regularly and explain how any third party application used assist with the response.

8.2 Preparing for emergencies

Emergencies can happen at any time. To prepare for this, it is useful to practise within a realistic scenario and introduce random indications of abnormal operations and in-flight failures. Skills are susceptible to fade and should be practised regularly in order to prevent them being lost.

The identification of a developing problem is equally as important as the response to it when it actually happens. Concentrate on spotting the symptoms and indications of abnormal operations and in-flight failures, rather than simply focussing on the subsequent response that is required. There is reduced value in a remote pilot possessing excellent semimanual flight mode flying skill if they are slow to recognise that their aircraft has switched to this mode. The ability to progress from identification to response is especially important when dealing with unusual events that require immediate intervention by the remote pilot.

8.3 Making emergencies less likely

Preventing an emergency is better than dealing with one. You should be aware of your own human limitations, e.g. fatigue, as well as the limitations of the SUA and its systems, e.g. environmental factors. There are also operational limitations you must take into account, such as procedures which may be required to mitigate any risks present in the intended flight or permissions which you may need to obtain.

8.4 Identifying causes of Global Navigation Satellite System and compass degradation

When designing procedures to help identify what may cause loss or degradation of GNSS or compass you should consider the following points, but please note this list is not exhaustive.

Signal loss:

- Buildings or terrain mask signals.
- Lower numbers of satellites leading to reduced coverage in the operation area or reduced positional accuracy.
- Reduced positional accuracy due to Dilution of Precision (DOP) or other factors such as multipath and atmospheric effects.

Electromagnetic interference or distortion:

- High voltage wires.
- Metal structures, including underground structures.
- Any notifications of unusual electromagnetic activity, for example GNSS jamming and similar activity will be subject to NOTAM.
- Nearby radio frequency transmissions.

UAS technical failure/damage may prevent proper GNSS or compass function:

- Other UAS in-flight failures may result in the UAS deactivating its GNSS capabilities.

9. Safety concerns

9.1 SUA operators

You must report any safety occurrences involving your SUA to the Isle of Man CAA, including (but not limited to):

Air operations

- Unintentional loss of control.
- Landing outside of intended landing area.
- Inability or failure to achieve required aircraft performance expected.
- Unintended flight beyond visual line of sight.
- Unintentional release of payload or article attached to small unmanned aircraft.

Technical occurrences

- Any flight control, including telemetry and first-person view downlink, not functioning correctly or disconnected.
- A failure or substantial deterioration of the aircraft structure.
- A loss of any part of the aircraft structure or installation in flight.
- A failure of an engine, rotor, propeller, battery or other essential system.

Interaction with ATS

- Interaction with air navigation services (for example: conflicting communications or deviation from clearance) which has or could have endangered any aircraft, or any person.
- Airspace infringement.

Emergencies and other critical situations

- Any occurrence leading to an emergency call by the remote pilot.
- Fire, explosion, smoke or fumes.
- Incapacitation of the remote pilot or observer leading to inability to perform any duty.

External environment and meteorology

- A collision on the ground or in the air, with another aircraft, terrain or obstacle (including vehicle).

- A near collision, on the ground or in the air, with another aircraft, terrain or obstacle (including vehicle) requiring an emergency avoidance manoeuvre to avoid a collision.
- Wildlife strike including bird strike which resulted in damage to or loss of functions of the small unmanned aircraft.
- A lightning strike resulting in damage to or loss of functions of the aircraft.

Reports should be submitted by completing CAA Form 1, available from our website

<https://www.gov.im/caa>. You can find more information on occurrence reporting in CAA Publication 7: Occurrence, Serious Incident and Accident Reporting, which can be [downloaded from our website](#).

9.2 Members of the public

If you wish to make a complaint about a SUA that you consider is being operated unsafely, you should contact the Isle of Man Constabulary by telephone on 01624 631212.

10. Privacy and landowner concerns

The Isle of Man CAA does not have a remit to regulate privacy matters arising from SUA flying, but you must respect the privacy of people on the ground when flying your SUA. Landowners are within their rights to refuse permission for SUA to be flown from their land, and public areas may be subject to additional policies or byelaws restricting the flying of SUA.

More information is available from:

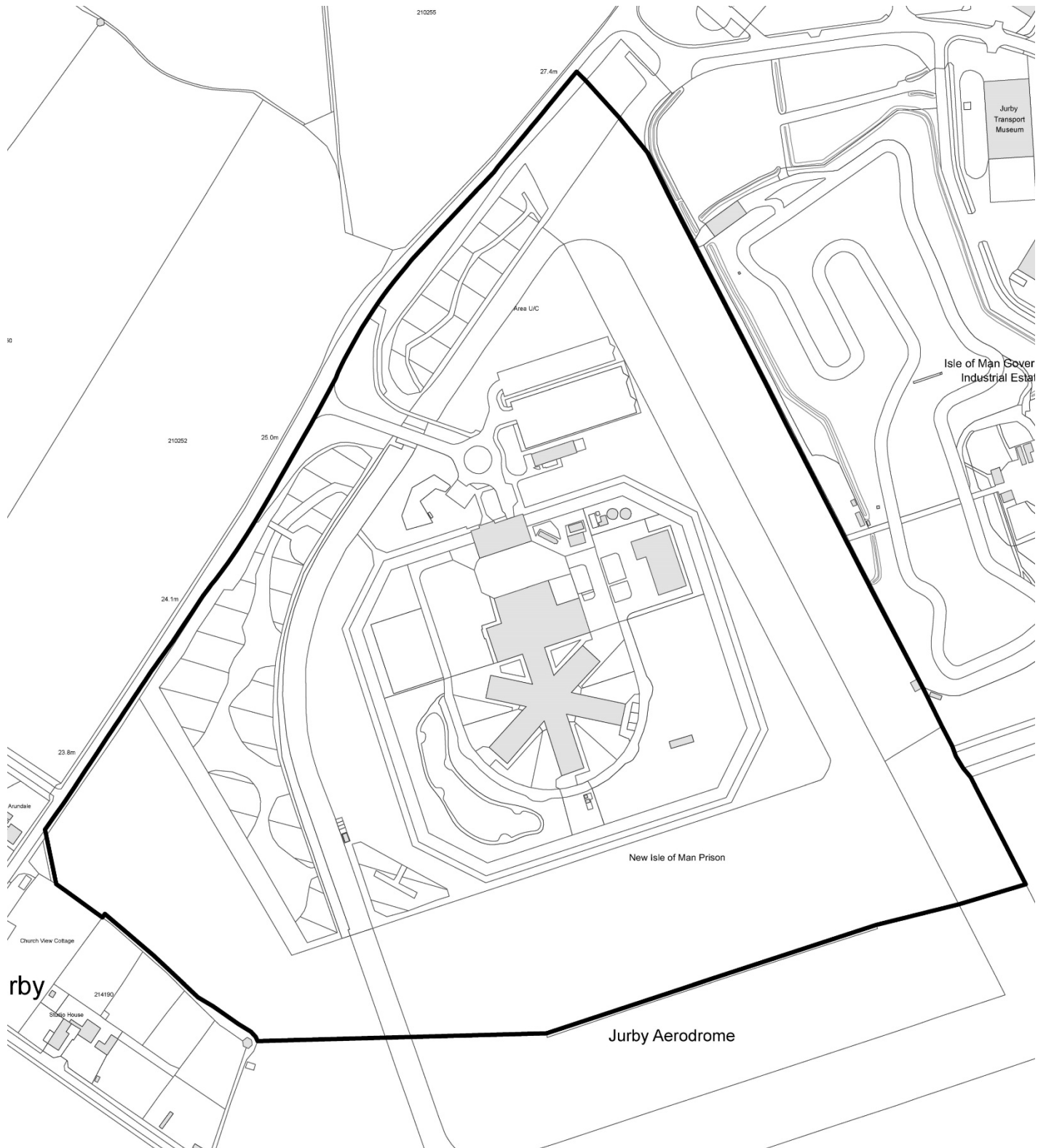
- [Isle of Man Information Commissioner](#)
- [Manx National Heritage](#)

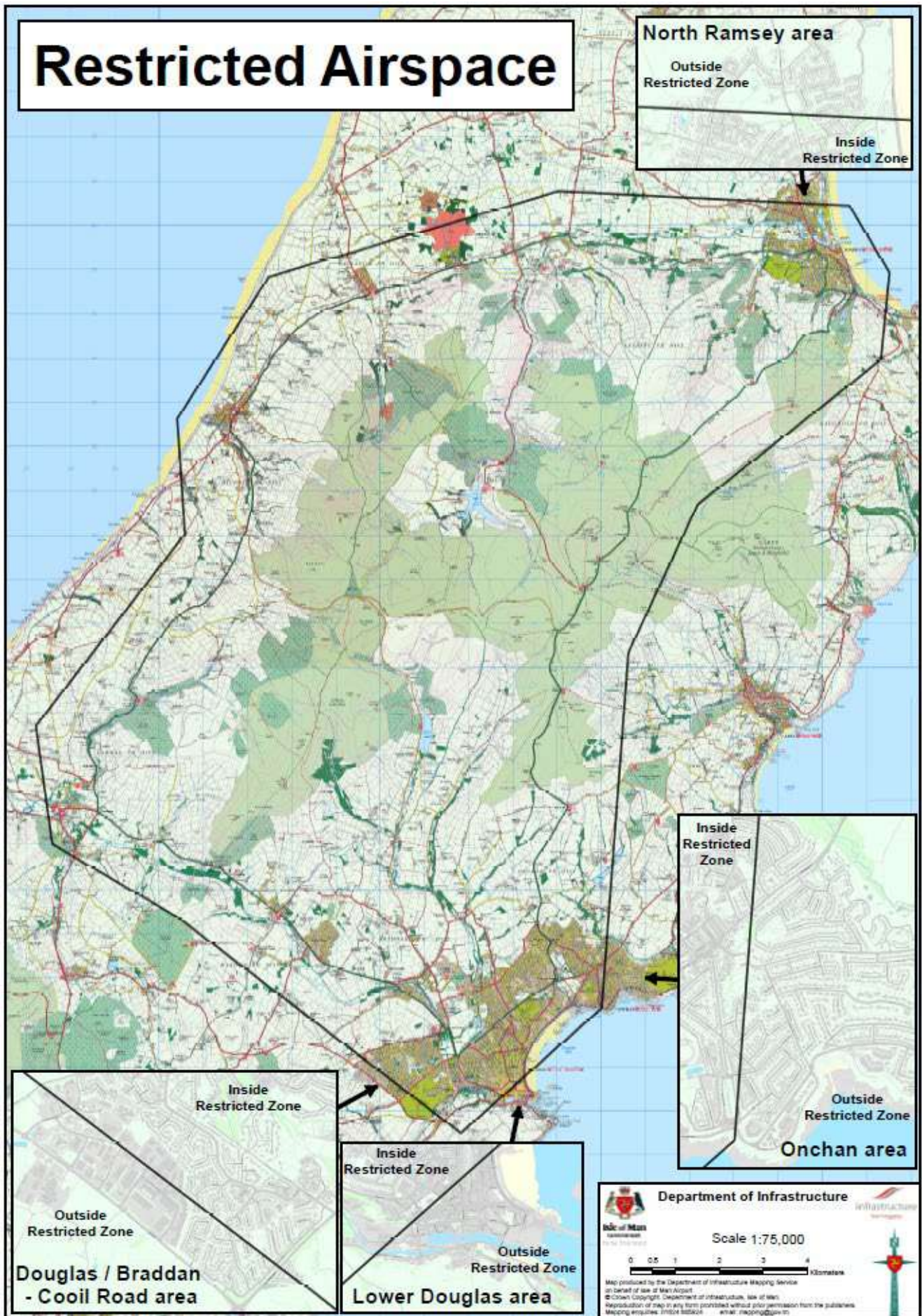
If you wish to make a complaint about your privacy being infringed by a SUA, you should contact the Isle of Man Constabulary by telephone on 01624 631212.

Annex A: Isle of Man Airport airspace restriction



Annex B: Isle of Man Prison airspace restriction





A larger version of the chart is [available on our website](#).

The TT/MGP restricted airspace is that within a series of straight lines joining the following points from the surface up to 3000 feet AMSL:

- (a) 541952N 0042233W;
- (b) 541904N 0042140W;
- (c) 541800N 0042147W;
- (d) 541610N 0042530W;
- (e) 541420N 0042650W;
- (f) 541000N 0042708W;
- (g) 540825N 0042958W;
- (h) 541055N 0043600W;
- (i) 541145N 0043840W;
- (j) 541311N 0043906W;
- (k) 541535N 0043609W;
- (l) 541659N 0043624W;
- (m) 541845N 0043436W;
- (n) 541955N 0042838W; and
- (o) 541952N 0042233W.