

## General information for drone operators on South Georgia & the South Sandwich Islands

Drones (Unmanned Aerial Vehicles/Remotely Piloted Aerial Systems/Small Unmanned Aircraft) are increasingly used around the Southern Ocean for science, film-making and photography. The Government of South Georgia & the South Sandwich Islands manages their use through the Regulated Activity Permit (RAP) System. Permission to use drones within the Territory will be considered only if it connected with research or media/outreach. All drone operations must demonstrate that impact to the environment has been fully mitigated and where competence and safety conditions can be demonstrably met.

As part of the RAP application that you are required to complete prior to operating a drone on SGSSI, you will need to confirm you will meet stringent safety and environmental measures. These are identified in a check list

This document provides background information on conditions which may be expected on South Georgia and how this should be factored in to planning any flight operations

### Pilot training and safety

No recreational use of drones is allowed on South Georgia. All drone operations on SGSSI require a Regulated Activity Permit. In addition, drone operations over land or within 12nm require a permit under the Air Navigation (Overseas Territories) Order. This is administered by Air Safety Support International (ASSI) on behalf of GSGSSI. As part of the application, ASSI will need to be satisfied:

- That the pilot is suitably qualified and/or experienced (you will need to submit evidence of an aviation authority recognised qualification or a CV detailing experience of piloting drones),
- You have adequate 3<sup>rd</sup> party liability insurance for use of the drone,
- You have an appropriate company flight operations manual, detailing procedures for operating drones.

### Weather conditions

South Georgia can have strong and gusty winds and there can be rapid changes of weather which can make drone operations challenging. Wind speeds can go from near zero to 100 knots in a short space of time. Operating drones in the vicinity of cliffs or mountains is especially challenging as there may be high levels of turbulence.

Pilots should practice the kind of flights they want to perform before they arrive on South Georgia and they should fly well within their ability and the capability of the aircraft when present in the territory. If wind speeds are above 25 knots, flights on SGSSI must cease but you should also check the maximum windspeed your drone can safely operate in and ensure you are operating well within this.

Even in the summer temperatures can drop below freezing. Cold weather may limit batteries and sudden winds may be encountered even on days where the weather looks fine and

settled. It is therefore important to make sure that batteries are in good condition and a large safety margin is built into flight times.

### Wildlife

SGSSI is home to large numbers of seabirds and seals. In the summer months, beaches are crowded and 10's to 100's of thousands of animals can be present. Avoiding wildlife disturbance is therefore a high priority and failure to do so is an offence under the Wildlife and Protected Areas Ordinance 2011.

Prior to arriving on South Georgia familiarize yourself with the locations of wildlife aggregations. A useful reference is the SG GIS <https://www.sggis.gov.gs>. Unless you have a specific permit to do so, flights over wildlife aggregations are not allowed. If as part of your project, you have a justifiable need to fly directly over wildlife, there are strict conditions you must agree to follow and these are detailed in the Standing Conditions for drone operations on South Georgia. All flights over Wildlife need a category 2 Regulated Activity Permit.

All drone operations must have a dedicated, and appropriately trained, observer and fly within visual line of sight unless this is specified on the permit. This observer will be looking for responses by wildlife on the ground, or interaction with flying seabirds. Extra observers on the far side of a flight path are encouraged where possible.

### Vessels

Flying from vessels requires extra caution and practice. Most drones become controlled by GPS positioning upon take off so that without input, they become stationary above a point on the earth's surface while a vessel (or sea ice) not under way may still move with wind and current. It is important to consider a safe take-off and landing procedure that will result in the drone moving away from the vessel if contact is lost. Drones must have a Return To Home (RTH) feature and it is important to update the controller where possible so that the home point is the controller, rather than the take-off point (for moving vessels or even vessels moving around on anchor).

If a drone is to be operated over water, consider floatation devices to allow for recovery if it lands in the water. These should be tested outside of South Georgia.

### Structures

South Georgia has a number of abandoned whaling stations that are designated as Prohibited Areas due to the high levels of asbestos and dangerous structures, it is illegal to enter these whaling stations, or the 200m area surrounding them without a permit. Drones must not be flown inside the Prohibited Areas. If overflight of a Prohibited Area is part of your planned activity, you must discuss this with GSGSSI in advance of your trip as extra permissions may need to be sought

The research station at King Edward Point and museum buildings at Grytviken are home to scientists and Government Staff. There can be a range of activities happening on station including operation of machinery and use of drones for scientific surveys. To avoid potential collisions, and to respect the privacy of those living and working at KEP, it is a condition all

RAP permits which include drone operations that you must seek permission from the Government Officer before any flights over buildings at KEP or Grytviken