Government of South Georgia and the South Sandwich Islands Briefing to IAATO Members May 2014

1. Brief overview of 2013 / 14 Season

2013/14 was another incredibly busy and diverse season for South Georgia with ongoing habitat restoration and heritage projects, various external science projects as well as Government led projects (involving IAATO) to review visitor activities (extended walks) and the medical arrangements on visiting cruise ships.

As always, GSGSSI is very grateful for the assistance given by a number of vessel operators with the carriage of project staff.

In total, there were 55 cruise ship visits, carrying 7,024 passengers. This was an increase of 1,232 passengers over the previous season, bringing visitor numbers back in line with figures recorded 4 seasons ago. There were no major incidents involving visitors during the season.

There was also a slight increase in the number of yacht visits over the previous season with 18 visits by 15 different yachts, amounting to a total of 214 people.

There were 4 overland expeditions, 3 of which were yacht supported and one that was supported by a cruise ship.

2. Administration

2.1 Visitor Fees

IAATO members are reminded about the revised visitor fee structure for next season.

From July 2014 the visitor fee structure for all visitors (16yrs and over), with the exception of professional (paid) staff and crew will be:

£120 for up to 72 hours, and thereafter £20 per day (or part thereof) to a maximum for £200 (covering a maximum duration of up to one calendar month).

2.2 Documentation

The Visit Application Form for 2014/15 and Post Visit Report form will soon be posted on the GSGSSI website (IAATO Members will be notified). In future these forms will be writable pdf formats to assist the application and data entry process.

The *Information for Visitors 2014/15* booklet will be updated following the IAATO meeting along with the *Biosecurity Protocols* document. These documents will also be posted on the website and members notified.

2.3 Memory Sticks

In addition to the documents posted on the website and with effect from the coming season all successful visit applicants and visit permit holders (Expedition Leaders) will receive a memory stick holding key visit information documents. These will be sent to vessel operators and also disseminated through shipping agents in Stanley. The memory sticks will hold briefing information including:

- Information for Visitors to South Georgia (2014/15) Booklet
- Additional information for permit holders

- Post Visit Report Form (and list of approved landing sites)
- Site Visitor Management Plans (including new plans for extended walks).
- Visitor Briefing film (2014 version)
- SGHT Habitat Restoration presentation

2.4 Briefing Film update

The visitor briefing film is currently being updated to reflect the progress made with the various habitat restoration projects to eradicate rodents and reindeer (and the associated biosecurity implications). This will be included on the memory stick provided to visit permit holders. It is very important that all out of date versions of this briefing DVD are destroyed and that visit permit holders ensure that they have the most recent version ready (and working) in advance of their visit. GSGSSI also intends to hold a supply of DVDs (PAL & NTSC) in case any problems are encountered with the version on the memory stick.

2.5 Legislative Review

GSGSSI has employed a legal drafter on a two year contract. A suite of legislative review work, drafting modern legislation for the Territory, will now be able to progress. This will include visitor legislation. Stakeholders, including IAATO, will be consulted as soon as any relevant Bill has been drafted, though members should not expect any substantive changes to the current visitor policy.

2.6 Passport documentation

IAATO members (and vessel agents) are reminded that visitors intending to land must be in possession of either a valid passport or seaman's book. No visa is required to visit South Georgia

3. Visitor Activities

The following section summarises the findings of a review undertaken in March 2014, examining visitor activities (specifically overland walks for tourists led by staff).

3.1 Background

January 2012, a cruise ship passenger visiting South Georgia tragically died as a result of injuries sustained following a fall from a cliff, whilst undertaking a guided overland walk (the Shackleton Walk) between Fortuna Bay and Stromness.

A year later, at the inquest in the Falkland Islands, the Coroner delivered a narrative verdict and also wrote to the interested parties represented at the inquest hearing, including GSGSSI & IAATO. In this letter he listed a number of specific findings and a number of recommended action points for GSGSSI to consider and address. These included the following comments and concerns:

- The route being followed was not the official route detailed in the GSGSSI Site Visitor Management Plan (SVMP), a copy of which the walk leader had received.
- There had not been warnings given about the cliff, nor was a member of staff at that point to warn walkers.
- Staff involved in the oversight of the walk, demonstrated uncertainty with regard to the SVMP issued by GSGSSI and in particular the official route.
- There was evidence that the route / walk leaders, had passed information to successive staff members and followed the unofficial route on a regular basis.
- The following of official routes, which are as safe as circumstances can allow, is a major factor in preventing injuries or deaths.
- The fact that the unofficial route was still being taken in January 2013 (one year after the accident, despite the distribution of a revised SVMP) was particularly concerning.

HM Coroner's recommendations included:

• More emphasis should be given to safety (rather than environmental protection) when developing management plans.

- Revised or enhanced permitting procedures should be developed to ensure that applicants certify that all relevant documentation has been read, understood and that staff have been informed.
- Further revisions to the Shackleton Walk management plan to make this more forceful.

GSGSSI's response, working closely with IAATO, was to establish a review panel with representatives from both GSGSSI and IAATO (and other independent experts), to review existing activities and management arrangements (in particular for extended walks) and make recommendations.

3.2 Review Objectives

In March 2014 a team of 3 review staff, comprising an experienced BAS field specialist (on contract to GSGSSI), a GSGSSI Officer and an experienced IAATO Expedition Leader, commenced work in South Georgia to review all existing approved overland walks, as well as some potential new walks.

Their remit was to review all the existing approved guided overland walks undertaken by visitors off cruise ships and yachts and critically assess the management of each walk. (Overland expeditions are assessed, administered and permitted separately and routes may vary if circumstances and conditions dictate).

Whilst recognising the remoteness of the location and limited medical facilities ashore, it is the expectation of the Government that visitors should be able to enjoy these activities and be confident that there are appropriate checks and measures in place to ensure that they can do so relatively safely, without being exposed to avoidable and unacceptable risks.

The review team were tasked to consider the following:

- Requirements for defined routes, with designated GPS waypoints; focusing principally on safety, but also, when possible, factoring in environmental considerations.
- Guides (staff) / visitor ratios & group sizes
- Minimum level of experience & skill requirements for guides and staff.
- Specific hazards and landing limitations.
- Grading of walks.
- Closed areas (principally for reasons of safety, but also for environmental protection).
- Specific kit requirements.
- Areas suitable for free movement of visitors under the oversight of staff.

The following routes were visited during the review period:

- Fortuna Bay Shackleton Walk
- Godthul to Sandebugten
- Godthul Hill
- Stromness to Leith Harbour
- Maiviken to Grytviken
- Gold Harbour
- Sorling Valley to Ocean Harbour
- Carlita Bay & Olsen Valley
- Rookery Point Walk

Of these the Maiviken and Shackleton walks are the most popular. The last 2 are not established walks, but were included as new suitable and enjoyable walks for visitors in future seasons.

For each of these walks, a set of guidelines has been drafted that generally includes:

- Introduction: Brief summary of the route with specific safety or environmental concerns outlined.
- Route grade.
- GPS waynoints

- Written description of the route between waypoints.
- Distance and height gain.
- Staff to visitor ratios.
- Photos of sections of the route.

(The substantive points raised by the review process in each case are listed in the Annex to this document. The guidelines will either be integrated into existing site visitor management plans (SVMP), or new plans will be prepared in advance of the 2014/15 season. These will be supplied to successful visit applicants and visit permit holders).

3.3 Initial Findings & Recommendations

Waypoints

For the most part, waypoints have been included as an aid to navigation and the exact route taken will be left to the discretion for guides. Exact waypoints point use will only be mandatory in specific locations where safety is an issue, or environmental protection of particularly vulnerable habitats needs to be addressed.

Closed Areas

For safety (or occasionally environmental reasons) a limited number of closed areas have been created, the most well known of these is the streambed to the north of the designated route on the Shackleton Walk.

Route Grading System

To assist ELs and walk leaders less familiar with the walks, a "green, amber, red" grading system has been created for approved walks. This takes into consideration the walk length, terrain and technical difficulty, as well as the skill and experience of those leading the walk and those participating.

Green: relatively straightforward and not technically challenging. Good for fit novice hill walkers with safe robust footwear. Normal 1:20 staffing levels for guides (minimum).

Amber: requires more route finding skills of the leader, through more awkward terrain and the guide / visitor ratio is reduced to 1:15 (minimum). Visitors need to be more experienced, fit and well equipped.

Red: involves complex navigation over challenging terrain and includes higher risk section(s), which will require very careful management of walkers. The minimum guide ratio is reduced to 1:10 (minimum) and all walkers need to be experienced, confident, fit and well equipped (including walking boots).

The guide / visitor ratios proposed, are minimum levels. Leading guides should always ensure that they have adequate numbers of staff to respond to any incident and also safely manage the walking group as a whole.

Group Size

Passengers group size is dictated by technical difficulty, environmental factors and the skill level and experience of both staff and visitors. For Green and Amber walks this should not exceed 100 visitors (the only exception being restrictions for environmentally sensitive areas), whilst red walks should not exceed a visitor group size of 10.

Rather than operating as one large chain of visitors, guides are encouraged to manage their visitors in smaller discrete units.

Staff Experience

Though formal qualifications are not currently required, GSGSSI recommends that operators ensure that they engage experienced staff with appropriate qualifications (such as Mountain Leader), bringing standards across the industry in line with elsewhere in the world. Staff should not be accompanying walks unless they are capable of independently managing groups of visitors in the event of an incident. This means having appropriate skills and experience to safely navigate and lead a group to safety.

Ideally <u>all</u> staff should have plenty of hillwalking experience and be qualified to do so (this is critically important in the case of a red walk). As a minimum, all staff participating on any walk should be able to:

- Use a GPS, map and compass;
- Have previous hill walking experience, preferably leading groups;
- Have a current first aid qualification;
- Be confident to manage a small group independently.

Staff Equipment:

There should be sufficient equipment carried by the <u>each</u> staff member to keep a group sheltered from the elements, raise the alarm if necessary, deal with immediate first aid, and have the tools to navigate independently.

This should include:

- Compass and whistle
- Local area map plus GPS, spare food and drink
- Spare clothing
- Basic first aid kit
- VHF

As a group, the staff should ensure they carry:

- 1 Iridium phone (minimum)
- 2 GPS units and spare batteries (minimum), more are required for larger groups
- Spare walking poles
- Group shelters to accommodate the complete party distributed between staff members

Medical Provision

A separate medical review is being undertaken (see 4). However, it is clearly important to have appropriate medical provision in place, whether that be the ship's doctor (if a confident walker) with a full medical kit to treat trauma injuries in situ, or a well equipped experienced staff member with extensive first aid skills.

Visitors Capabilities and Preparation

Staff need to ensure that walkers are adequately vetted and that they (staff) do not feel pressured to guide walkers who are not fit enough or lack the relevant experience. On more challenging walks, all participants should have previous (and recent) experience.

All visiting walkers are recommended to carry

- Spare clothing;
- Hat and gloves;
- Emergency food;
- Drink:
- Personal first aid stuff (inhalers, blister kit, personal drugs);
- Walking poles if they normally use them.

Walking boots, rather than Wellington boots are strongly recommended and should be mandatory for any red walks. Guides should note and are encouraged to record what footwear is being used.

3.4 Accident reporting

All accidents (no matter how minor) and near misses must be recorded and reported. If there are common issues arising it will then be possible to address these, inform other visitors and possibly prevent a far more serious accident from occurring.

3.5 Additional Activity Reviews

The GSGSSI & IAATO activity review process has focussed on extended walks. GSGSSI would now strongly encourage and welcome the drafting of IAATO guidelines for additional visitor activities undertaken by IAATO members, specifically Kayaking & Scuba Diving (or snorkelling). GSGSSI notes that there has been a 50% increase in Kayaking each year over the last 2 seasons.

During the 2013/14 season a total of 612 visitors undertook kayaking activities at 23 sites

3.6 Concluding remarks

During the 2013/14 season extended Walks were undertaken on 171 occasions at 32 sites by over 4,182 visitors (passengers, crew and expedition staff). The most popular was the Shackleton Walk with 29 separate visits and a total of 1,196 passenger visitors (620 for year 2012/13). Maiviken to Grytviken has attracted increased interest this year with 20 separate visits and 647 passenger visitors completing this route (250 for year 2012/13). The other 2 sites, which have seen an increase in this activity, are Grytviken with 1,099 passenger visitors (year 2012/13 was 243) and Stromness with a total of 1,099 passenger visitors (year 2012/13 was 450). The Shackleton Walk from Fortuna Bay to Stromness remains the most popular walk, and is now back to previous year numbers.

GSGSSI hopes that visitors will continue to enjoy the incredible experience of overland walks on South Georgia, but they and the staff leading them must, at all times, recognise the risks and limitations and plan accordingly. The remote location, lack of medical facilities and highly changeable weather mean that the consequences of an accident on these walks is potentially far more serious than on a similar walk in their home country. For this reason alone, it is inappropriate to treat these walks as something that 'anyone can do'. Staff (and visitors) need to be well equipped, have an adequate level of fitness, and staff should be sufficiently experienced to manage groups safely in all weathers.

4. Medical Review

Following concerns raised by HM Coroner during the course of the 2013 inquest, GSGSSI, in close liaison with IAATO, commissioned a review of the current medical arrangements and capabilities on visiting cruise ships. This review, which is being undertaken by Dr. Samantha Crimmin, a trauma doctor with both IAATO and BAS King Edward Point experience, is currently in progress. On completion, Dr. Crimmin's recommendations will be peer reviewed, before being considered and addressed by GSGSSI (and the IAATO secretariat). GSGSSI would like to thank all of the IAATO members for submitting their vessel's medical capability information during the course of last season's visit application process.

Dr Crimmin's medical review is taking an holistic approach, covering Antarctic Tourism, the Antarctic Treaty System regulation, IAATO regulation, International Maritime Law regulation, a literature review of Antarctic and traditional cruise industry injury and illness patterns, a risk assessment matrix for Antarctic Tourism, a proposed Antarctic Adaptation of the CLIA guidelines and comment as to how close current arrangements are to the existing CLIA guidelines on the basis of equipment carried in the 2013/14 season.

In advance of the review findings, GSGSSI needs to bring to the attention of IAATO members a number of areas of immediate concern.

For the second season running and despite having raised this issue previously, a visiting cruise ship arrived without an adequate stock of medication and requested the provision of painkilling medication from the limited base supplies held by the base doctor at King Edward Point. On this occasion the base was left devoid of their entire supply of one specific painkilling drug until this could be replenished some weeks later. This is not an acceptable situation.

If appropriate checks are in place on every vessel, there should be no further need for vessels to request the provision of drugs, other than in exceptional circumstances.

The limited medical facilities at KEP provide medical cover for base personnel only. All other vessels must be self sufficient in every respect, including provision of adequate medical cover. In an emergency, there

might be the possibility of accessing some degree of medical assistance from KEP, but this must never be relied upon. In this particular instance the base medical capability was compromised unacceptably.

In advance of next season (and without seeking to prejudge the findings of the medical review), GSGSSI expects all visiting cruise ships to thoroughly implement their preseason medical checks and ensure that:

- Vessel operators, charterers and embarked physicians thoroughly review and inspect their medical supplies and pharmaceuticals, to ensure that they can operate in a remote ocean region and be entirely self sufficient (extending their supplies as necessary above and beyond their current minimum flag state mandatory requirements)
- Vessel operators and charterers should ensure that all embarked physicians have appropriate experience and references, including adequate recent professional training and experience of treating trauma injuries. They also need to be familiar with the facilities on board the vessel and be aware of the limited medical facilities available at South Georgia.

Operators are also again reminded of the importance of visitors on medication taking some of their medication ashore with them to ensure that they are covered in the event of any delay in returning to the ship.

5. Habitat Restoration

5.1 Reindeer

In February 2014 GSGSSI completed a major project to remove reindeer from South Georgia (a full press release may be obtained from the GSGSSI website). The project, which involved both herding and ground shooting, was carried out over 2 summers and involved the humane removal of 6,600 non-native reindeer from the Busen area and Barff Peninsula.

GSGSSI wishes to thank IAATO operators for their co-operation and understanding during this project, when it was necessary at times to restrict access to certain areas.

Several scientific studies were undertaken in conjunction with the main project and long-term monitoring of the habitat recovery will continue in the coming years. Early signs of vegetation recovery in the Busen area are already visible and this is very encouraging.

Some of the project costs have been offset by the sale of reindeer meat in the Falkland Islands. Meat recovered from the project (by professional butchers under veterinary officer supervision) is still available for the coming season and we would encourage any operator interested in purchasing this high quality and highly unique product in Stanley to contact GSGSSI directly.

With an eradication project of this type there is always a risk that some individual animals might not have been identified and GSGSSI is aware that a small number of animals were not culled last season. IAATO staff are requested to report any reindeer sightings to GSGSSI officers at the earliest opportunity.

5.2 Invasive plants

Throughout the season GSGSSI staff have continued to treat areas of ground in the vicinity of Grytviken and KEP to control the spread of bittercress (and ultimately it is hoped to eradicate this highly invasive plant species) and several other non-native plant species. Additional invasive plant work was undertaken in Stromness Bay by Sally Poncet and Ken Passfield.

GSGSSI wishes to thank IAATO staff for their efforts to ensure that visitors do not enter closed areas and for their continued resolve to rigorously implement biosecurity measures. No serious compliance issues were identified by Government Officers during this season's inspections at Grytviken.

5.3 Rats (SGHT)

Monitoring and preparations for 2015

Following the completion of Phase II baiting (NW area) in May 2013, the SGHT has undertaken some preliminary monitoring to determine the success of that operation. In March an extensive yacht supported survey was undertaken by the SGHT with GSGSSI involvement. This involved the deployment of a total of 853 monitoring devices to detect the presence of rats at 16 coastal sites from Stromness Bay to the Nunez Peninsula. No evidence of rats or mice was detected. This is hugely encouraging and critically important for the Phase III operational planning.

Phase III of aerial baiting (and it is hoped the final phase of the project) is due to commence in mid to late February 2015 and is expected to continue for the remainder of the season. In advance of this members will receive further briefing instructions, but operational protocols will be much as before and on occasions it will be necessary to close some sites between the Barff Peninsula and Drygalski Fjord. As was the case in the first phase, many of the helicopter flights will be operating out of Grytviken. This will result in some access restriction to some parts of Grytviken during flying operations, but it will still be possible to access all the key sites and attractions. As before, ELs will be updated on a daily basis, both about flying activity at Grytviken and also baiting at other landing sites.

GSGSSI and the SGHT regret that some disruption to ship's schedules and landings will be inevitable, but the Government hopes that visitors will recognise the importance of this project to the ecology of the island. Indeed it is hoped that some visitors will find the work of great interest and the SGHT greatly appreciates the assistance and very generous donations to this project, which have been made by IAATO members and visiting passengers in recent seasons.

Recovery of drums

In April the GSGSSI patrol ship Pharos SG collected 247 fuel drums (empty and full) from the Phase II coastal forward operating bases. The remaining drums at Wilson Harbour and Undine Harbour should not be visible to visitors and plans are already in place for the recovery of these next season. If staff do see anything they are concerned about, then they should contact the Government Officers at KEP at the earliest opportunity. During the winter storms a few drums are known to have been lost (in the Right Whale Bay area). If the opportunity arises for any of these to be recovered to KEP, then this would be greatly appreciated.

6. Heritage Projects

6.1 Laser survey

The Geometria laser survey of Leith in November (jointly funded by the governments of Norway, UK and SGSSI) was the last of the major stations to be surveyed by this method. The results have been very impressive and the surveys are expected to be an extremely useful tool for future management, as well providing incredible visual imagery. Further work is planned to produce "fly-throughs" and other displays, to enable visitors to see the current state of the stations and to better understand the South Georgia whaling industry, without having to enter these extremely hazardous sites.

6.2 Works

Works projects undertaken in the last year included the completion of the external restoration of the Nybrakke Barracks in Grytviken and also the re-glazing the garage and main store. Work was also carried out stabilise the Stromness manager's villa.

2013 was a special year for Grytviken, with the 100th anniversary celebrations of the church. In addition to GSGSSI works on the church, annual maintenance and repairs were carried out in the museum and other Grytviken buildings. There was also an increased effort to maintain the cemeteries in Stromness Bay (as well as Grytviken).

At King Edward Point, the final restoration and repair works to Discovery House were also completed. This has given this historic building a new lease of life and returned it to its original role of supporting science at KER through the provision of additional assumption and office space for visiting scientists.

Consideration is being given to undertaking works on the meat loft platform (overlooking the site of the flensing plan) to facilitate visitor access to this impressive viewing location. Before this project progresses any further GSGSSI is seeking feedback from operators as to whether they would utilise this (or whether this might impose even greater time management issues for the management of passengers at Grytviken).

6.3 Advisory Panel

The inaugural meeting of the South Georgia Heritage Advisory Panel was held in May 2014. The panel, which was formed by GSGSSI, directly advises the Government on all significant heritage projects. This includes restoration projects and any other works projects, which may affect a heritage site, ensuring that proposals are professionally scrutinized and any work is undertaken to recognised international standards. The panel also provides recommendations to GSGSSI on the development of policies, restoration strategies and the drafting of new legislation to protect the island's heritage sites and artefacts.

One of the first tasks for the panel will be to advise on the GSGSSI works plan for Grytviken in the coming seasons. This will include the interior plans for the Nybrakka barracks. Various new restoration projects under consideration for Grytviken are expected to increase site access and further enhance the visitor experience. The role of the panel will become increasingly important in coming years, as the Heritage Trust's principle focus of attention moves from habitat restoration to historical heritage and restoration work.

Final thoughts

In recent years the SGHT and GSGSSI have both achieved remarkable accomplishments with their respective habitat restoration projects. As Phase 3 of the SGHT project to eradicate rats approaches, it is timely more than ever that all visitors, whether they be government staff or tourism related, re-double their efforts to ensure that all biosecurity precautions are being rigorously and effectively implemented throughout the full duration of any visit. No individual, or company, would want their South Georgia legacy to be an ecologically catastrophic biosecurity breach. In turn, the GSGSSI appreciates greatly all the efforts IAATO members to thoroughly address this challenge.

June 2014

Richard McKee Executive Officer Government of South Georgia and the South Sandwich Islands

Annex

Summary of substantive issues arising from specific reviews of extended walks (March 2014)

The guidelines prepared by the review team will either be integrated into existing site visitor management plans (SVMPs), or new plans will be prepared. In this section any substantive changes or points of note in the case of each walk have been highlighted.

The full complete plans will be provided to visit applicants and visit permit holders (Expedition Leaders) and will also be available online prior to the start of the 2014/15 season.

Fortuna Bay Shackleton Walk

400m ascent/descent Approx. 6km walking

Map: BAS 25 Sheets 5A and 5B Busen Region

Walk rating: Amber Staff/visitor Ratio: 1/15 Max visitors: 100 per group

Est. Time: 3-4 hrs

- Walkers must all be fit and well prepared for harsh conditions; walking boots should be worn.
- If fur seals are a landing issue in Worsley Bay, a landing further to the south should be selected (and the route joined further inland). The existing route should be used whenever possible to avoid damage to neighbouring moss beds and disturbance to nesting giant petrels.
- Early in the season an avalanche risk may exist on the descent into the Shackleton Valley. Staff must inspect the descent and be prepared to reverse the route back to Fortuna Bay if at all concerned.
- Waypoints 7-12 are critical as they dictate the northern boundary of the region in which groups should descend, avoiding hazardous slopes and steep drops. It is at the leaders' discretion as to the route of descent taken within the bounds of the approved area, but the waypointed route described is well travelled and is safe if managed correctly. Should leaders choose to avoid the waypointed route, the slopes extending to the east from this viewpoint offer alternate descents down steep scree slopes. These may well be snow filled in the early season with some avalanche prone slopes above, so staff need to assess the risks involved in such descents on the day.

Godthul to Sandebugten

Height gain approx. 200m and drop of 200 m Distance 6 km Map BAS 25 Barff Peninsula (in production) Walk rating: Red

Staff/visitor ratio: 1/10
Max visitors: 12 per group

Est. time 3-4 hours

• Navigation and terrain challenging (especially in poor conditions); only for competent parties and walking boots are essential.

- The route described and waypoints given in the review provide the safest route to be followed. However, the route should not be considered as a series of straight paths between waypoints and leaders should exercise judgment in safely picking their route. However, waypoints 9, 10 and 11, leading out of Reindeer Valley and into Sandebugten, are critical and must be followed. Other routes out of the valley lead into exceptionally steep and difficult terrain.
- At the time of the review a fresh landslip on the slope traversing across to Echo Lake was apparent. Further landslips are expected, possibly rendering the slope impassable in the future. Staff must evaluate the slope before crossing and be prepared to turn back. Currently this area can be crossed with care in dry conditions but would be significantly more hazardous in the wet. A slip here would have serious consequences as the slopes below are very steep and drop directly into the bay.

Godthul Hill

Total height gain: 300m

Map BAS 25 Barff Peninsula (in production)

Walk Rating: Green Staff/visitor ratio: 1/20 Max. visitors: 100

- Be aware of nesting terns
- Groups on summit require careful management, due to unstable cliff edge.

Stromness to Leith Harbour

Map: BAS 25 Sheets 5A and 5B Busen Region

Walk Rating: Green Staff/visitor ratio: 1/20 Max visitors: 100

- Access is limited by fur seal numbers during breeding season. In this case it should be possible to land Zodiacs on the beach below waypoint 4 on the north side of the bay.
- A high level route, which can avoid the fur seals, unfortunately has an awkward step with a very large drop below that can't be protected adequately without the use of a rope. For this reason it is not recommended for larger groups of visitors, but could be undertaken by smaller groups of more experienced and well equipped walkers (max visitor group size 10).

Maiviken to Grytviken

Height gain: 205m ascent/descent

Distance 3.5 km to the Whalers' Church in Grytviken Map: Thatcher Peninsula Series BAS 25 Sheets 4A and 4B

Walk Rating: Green Staff/visit Ratio 1/20 Max visitors 100 Est. time 2-3 hours

• Maiviken is a KEP study area. The Tortula Cove gentoos in particular should be left undisturbed by visitors, so landings should be made in Poa Cove.

Gold Harbour

Walk Rating: Green Staff/visitor ratio: 1/20 Max visitors: 100

• The solitary waypoint indicates the start of just one of many possible routes up to the flats leading to Gold Head. This route avoids much of the moss that is encountered if traversing the flats from the west. However, wildlife distribution is likely to dictate the route followed and group leaders should use their discretion when selecting a route up.

Sorling Valley to Ocean Harbour

Distance: 6km

Height gained / lost: 300m

Map BAS 25 Barff Peninsula (in production)

Walk rating: Green Staff/visitor ratio 1/20 Max visitors 100

• The route described avoids the watercourse that descends into Ocean Harbour from the col as there are many wet, slippery slopes above small crags and drops. Instead it traverses the hillside for a short distance before descending steep grass. Note that slips and falls are likely on this terrain and walk leaders should endeavour to find a relatively dry route down. Walking boots are recommended for this reason.

Carlita Bay & Olsen Valley

Distance 7km

Height gained/lost: 160m

Map: BAS 25 Sheets 5A and 5B Busen Region

Walk rating: Green Staff/visitor ratio: 1/12

Max visitors: 12

• The abundance of diving petrel burrows requires great care and attention from walkers. Staff leading groups should be experienced and confident that they can spot burrows and find appropriate routes though terrain less likely to support burrows. For this reason, it would be inappropriate to lead a large group through the valley and group numbers should not exceed 12 visitors (not including staff). With the completion of habitat restoration projects (reindeer and rats) in the area, petrel numbers are expected to increase and GSGSSI would appreciate regular reports, which may have a bearing on the future viability of this walk.

Waypoint 4 (Olsen beach) lies directly below the shortest route through the tussac. Guides should pick the safest route through what may be a dense population of breeding Fur Seals.