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SAFETY PLAN

Document Version 2.3.2

stepman / Háfjall ehf.

Revision History

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Version	Date	Author	Remarks
1.0	2019-01-14	SM	Initial revision
1.0.1	2019-01-15	SM	Minor formatting and language changes, language versions; PA systems added for superjeep tours
	2020-01-15	SM	Reviewed with no change
	2021-01-17	SM	Reviewed with no change
2.0	2022-08-13	SM	General review and procedures adapted based on past years experience. High alpine tours added.
2.0.1	2022-08-15	SM	Formatting and layout changes. Risk assessments and Action Plans combined for each Safety Plan and formatting updated.
2.0.2	2022-08-23	SM	Work procedures reviewed and clarified..
2.1	2022-08-26	SM	Missing Trip Sheet added back in. Added paragraph numbering to facilitate referencing specific sections from other documents..
2.2	2022-09-01	SM	Inspection Plan added to the appendix
2.3	2022-11-05	SM	Icelandic translation revised
2.3.1	2022-11-07	SM	Cancellation authority clarified as a guiding principle. AIMG AT1 requirement added for Section 2.2 (202).
2.3.2	2022-11-08	SM	Page layout / formatting changes only
2.4	2022-11-27	SM	Redundand risk assessments / action plans replaced with cross references to other safety plans to facilitate updates.
2.4.1	2022-11-30	SM	Safety Plan 1 - risk assessment / action plans expanded to address loss of vehicle control and passenger illness (feedback from VAKINN review)

I. Overview and General Remarks

The presented safety plans are cumulative / additive for combined activities (a glacier hike may include a superjeep tour component to reach the desired location, etc.). Guides must be familiar with and adhere to all safety plans that apply to any single tour. To facilitate this, the risk assessments and action plans include all tour components (for example, the risks of superjeep transportation are also documented within the assessment of ice cave tours).

This document may be available in multiple languages. The English version is the authoritative document and should be referred to whenever translations are unclear or differences seem to arise.

I.1. Guiding Principles

All our tours must be **safe, protect the environment, reliable, and informative**. Customers should feel well cared for and receive **excellent value** for their money.

The principle of safety equally applies to customers, guides, and third parties. Activities that do not involve our customers but may increase risk to bystanders (such as ice climbing above other groups) are not acceptable.

The guide onsite always has full and final authority to cancel or shorten any tour if they deem the weather unsafe or any other safety concerns, regardless of promises made by third parties or customer opinion.

A unified **Incident Report** template has been drafted to be used in all activities; this is presented in the appendix and serves to provide a general structure for any incident reports, but may be modified as needed to document specific incidents. A unified **Trip Sheet** has been drafted as well to document each tour (also in the appendix). As an alternative to the Trip Sheet, the same information may be recorded electronically. The graphical **Contingency Plan**, also found in the appendix, applies to all tours. Finally, the **Inspection Plan** lists the frequency and some checkpoints for item inspections (and, in the form of a separate spreadsheet, can serve to record inspections).

The overall structure of our safety plan and operation is based on the guidelines of the Icelandic VAKINN quality standards on tourism.

The following guidelines also universally apply to all safety plans and work procedures included in this document:

Current and available

- All safety plans must be reviewed at least annually, or whenever changes to the working environment or new insights present themselves.
- Revisions to this safety plan must be documented on the preceding page, including date, author, and a short summary of changes made.
- The safety plans in their latest revision should be accessible to the public, online and/or in printed form.
- Safety plans must be updated to adhere to new regulations put into place by updated guidelines provided by VAKINN and/or the Icelandic Tourist Board.
- Incident reports should generally be made public in a redacted fashion (with any personally identifiable information removed or redacted).

Clear language

- The terms **“MUST”**, **“SHOULD”**, **“MAY”**, when written in capital letters, are used with specific meanings:
“MUST” is a rule that shall be fulfilled without exception.
Example: All vehicles **MUST** have all inspections and licenses required by law. (a deviation from this rule is not acceptable).
“SHOULD” is a rule that shall be fulfilled whenever possible, but may be disregarded under certain circumstances.

Example: Vehicles SHOULD have both VHF and Tetra radios. (it may be acceptable to just carry either VHF or Tetra under certain circumstances).

“MAY” is a rule that is entirely at the guide’s discretion.

Example: Passengers MAY use their own headlights instead of the ones provided. (either will work just fine).

- “INSPECTION” means: Thorough visual inspection for defects (including a full or partial disassembly as required), a full test for appropriate function, and repair or replacement of any components found to be defective.

Documented

- Inspection of all items shall be documented in suitable form, including at least the date, item inspected, name of person performing the inspection, and outcome (passed / repaired / replaced).
- Training exercises (e.g. crevasse rescue practice, drive training, etc.) of guides shall be documented in suitable form, including at least date, location, participants, duration and purpose of the training exercise.

I.2. Risk Assessments

The risk assessments in the following safety plans should address all known risks that pertain to particular activities. However, guides must always be mindful of unforeseen circumstances and identify additional risks during the tour.

The *Severity* and *Likelihood* values range from 1-3 (equating to low, moderate, high). The resulting *Risk Value* is calculated as a multiple of severity and likelihood. Risk Values of 3 and higher need to be addressed with appropriate action plans to reduce the likelihood, severity, or both (highlighted red in the adjacent table).

Incident reports and general sharing of observations and knowledge, both within the company and with external parties, are an important tool to identify new or changed risks and develop better mitigation strategies.

		Likelihood		
		1	2	3
Severity	1	1	2	3
	2	2	4	6
	3	3	6	9

I.3. Communications

Háfjall ehf. is a very small company that has based its marketing and reputation on all interactions being directly with the co-owner and sole guide. Consequently, all observations and experiences gained throughout the tours will directly influence all aspects of operation, from timing to group size and equipment choice, to guarantee a high quality and safe tour environment.

On the other hand, in the case of emergencies the small size of this company may also become a drawback, since the resources available in the “back office” or in form of additional guides are very limited. However, in practice this has never led to problems resolving issues that arose during the tours. The range of operations overlaps with numerous other tour operators, and mutual help and assistance has a long standing tradition in this area across all companies and their guides.

Besides working to build a good relationship with other tour operators, transparency of operation and multiple communications channels are seen as important factors towards ensuring the best possible communications in the case of emergency. Live location tracking can also be easily shared with any emergency responders if needed.

1. Safety Plan – Superjeep tours and General Activities

This safety plan applies to all tours in which passengers are primarily transported in modified vehicles, and other activities are limited to short walks around points of interest with minimal exposure to risks. The work procedures outlined here also serve as a foundation for all other activities.

1.1. Risk Assessment and Action Plan

Risk Assessment		Service / product	Person responsible				
		All outdoor activities, in particular superjeep tours	Stephan Mantler				
Date	2022-11-30						
Plan #	Risk	Risk description	Control measures	Severity	Likelihood	Risk Value	Action
1	Fall from height	Client stumbles / slips on uneven terrain, snow, ice	Rules on work procedures	2	2	4	Yes
1	Nature	Volcanic eruption / ash / glacial outburst	Guides are well informed about changes in activity and follow public recommendations when planning tours.	3	1	3	Yes
1	Other	Vehicle stuck in crevasse / river / ...	Rules on work procedures	3	1	3	Yes
1	Other	Vehicle rollover or crash after driving off road / loss of control	Rules on work procedures, driver training, reduced vehicle speed. Use of seatbelts etc.	3	1	3	Yes
1	Passenger illness	Onset or worsening of passenger illness in remote area	Passengers informed of remoteness. Medical fact sheet. Rules on work procedures.	2	1	2	No
1	Blow	Jolt from uneven car ride	Suitable vehicle, reduced speed on difficult roads, mandatory use of seatbelts.	1	1	1	No
1	Fall on level ground	Client stumbles upon entering / exiting vehicle	Rules on work procedures	1	1	1	No

o Action Plan

Date		Service / product		Person responsible			
2022-11-30		All outdoor activities, in particular superjeep tours		Stephan Mantler			
Plan #		Risk	Action taken to reduce risk	Operator	Completion	Risk after measures taken	
1	Client stumbles / slips on uneven terrain , snow, ice	Passengers are assisted entering / leaving vehicle. Walking route is chosen to minimize slipping risk and avoid exposure to unsafe heights. Passengers are reminded to not be distracted by taking pictures or other activities while walking. 'Microspike' crampons are carried on all winter tours and supplied to clients as required.	Stephan Mantler		1	1	1
1	Volcanic eruption / ash / glacial out-burst	In case of eruption / outburst during tour, guides shall bring passengers to suitable shelter, away from harm, and contact authorities about recommended further procedures.	Stephan Mantler		2	1	2
1	Vehicle failure / impassable roads prevent tour completion	On tours into uninhabited / remote terrain, vehicles shall carry emergency food supplies for 24hr. Guides shall be aware of and able to contact other operators or jeep drivers in the area, in case assistance is required. If possible, tours shall be planned to include an 'alternative' route or be changed if there is danger of eg. a river becoming impassable	Stephan Mantler		1	1	1
1	Vehicle rollover or crash after driving off road / loss of control	Measures to reduce likelihood of this risk: Drivers are required to familiarize themselves with vehicles and practice driving in difficult conditions. Tours must be changed or canceled in bad weather. Measures to reduce severity: drivers are required to adjust speed according to road conditions and weather, and have full authority to cancel or change tours as required for safe operation. Clients must wear seat belts at all times.	Stephan Mantler		2	1	1

1.2. Work Procedures

The guide to customer ratio MUST be at most 14 customers to each guide.

Mandatory Equipment

- **Vehicles** – Vehicles MUST fulfill all required licenses and examinations. All driving MUST be documented either on paper or electronically, including fuel consumption, regular and additional maintenance, etc. A daily summary is sufficient if it lists all stops / tours made during the day.
- **GPS** – A GPS device MUST be on board for all excursions. The GPS device SHOULD include tracks for known routes relevant to each tour. GPS devices MUST be inspected monthly. Maps downloaded to the device SHOULD be at the latest available revision. Smartphones are acceptable as substitutions for dedicated GPS devices for excursions remaining on public roads only (regular and mountain roads), provided they can be charged in the vehicle.
All navigation functions must be functional on the device without cell service (“offline”).
- **Communications** – Handheld or built-in VHF, TETRA radios, or satellite communications devices (text messaging or phone) MUST be carried on all tours that leave inhabited areas. These devices MUST be inspected at least yearly.
- **Tracking** – In uninhabited areas with limited TETRA coverage, or if no TETRA radio is being carried, an alternative remote tracking / emergency signaling device (PLB, eg. SPOT / inReach) MUST be carried.
- **Crampons** – Full-sized crampons or “microspikes” for all passengers MUST be on the vehicle for winter tours entering glaciated or heavily snowed terrain. Crampons and microspikes MUST be inspected yearly. Guides MAY choose between full-sized crampons and “microspikes” if those are deemed adequate for the excursion.
- **Ice Axe** – At least one ice axe for glacier travel MUST be carried on the vehicle for all tours entering glaciated or heavily snowed terrain. Ice axes MUST be inspected annually.
- **Safety Rope and Accessories** – A safety rope of at least 30m length, and all required accessories for a functioning crevasse rescue system, MUST be carried on the vehicle for all tours entering glaciated terrain. All components MUST be inspected at least once every two months.
- **First Aid Kit** – A first aid kit MUST be carried on all tours. The first aid kit MUST be accessible from inside the passenger room. The kit MUST be inspected annually for completeness and expiry of medications, by a pharmacy or physician.
- **Puncture Repair Kit** – A complete puncture repair kit SHOULD be carried on all tours outside of inhabited areas, unless the vehicle carries a spare tire. The kit MUST be inspected annually for completeness and usability.
- **Tire Inflation** – For tours outside of inhabited areas, vehicles fitted with a central tire inflation system MUST carry an extra length of tubing; vehicles not fitted with such a system MUST carry an air hose suitable for inflating all tires from a built-in or external air compressor. These items MUST be inspected annually.
- **Recovery Rope** – A heavy duty tow rope suitable for recovering stuck vehicles MUST be carried on all vehicles driving outside of inhabited areas. Vehicles MUST be fitted with suitable attachment points on the front and rear.
- **Tool Kit** – For tours outside of inhabited areas, vehicles MUST carry a tool kit adequate for addressing likely issues (socket set for lug nuts, drive shafts, etc.).
- **Head Light** – A headlamp and spare batteries MUST be carried on all vehicles.
- **Public Address System** – A public address (PA) system SHOULD be fitted on vehicles with 5 or more passengers to facilitate in-car guidance.

Drivers / Guides

In most tours, the drivers will also be guiding the tour (giving verbal information and instructions). On certain occasions (for example, when driving with a group with their own guide) these roles may be split up.

- All drivers MUST have the required driving permits.
- All guides MUST be certified “*Wilderness First Responder*” (WFR), or have an equivalent or better certification.
- All drivers MUST be familiar with all aspects of the routes chosen for a particular tour, and MUST have suitable qualifications for navigation.
- All drivers SHOULD practice driving in difficult conditions (deep snow, river crossings, etc.) and self-recovery of a stuck vehicle at least twice per year.
- All guides MUST have a “*Crevasse Rescue*” course, and MUST practice crevasse rescue at least once per year.
- All guides MUST practice GPS and compass navigation, including inter- and resection using paper maps, at least once per year.
- All guides MUST be fluent in English, or in the native language of the group they are traveling with.
- Guides SHOULD be familiar with and use the in-vehicle PA system if available.
- New guides MUST receive training by lead guides or other suitable staff concerning the vision, ideals and guidelines of the company, communication with guests, and group management.
- All guides MUST be aware of the Civil Protection emergency response plans and regulations (see), and follow them in full if necessary.
- All drivers MUST comply with all rules, regulations and recommendations for nature protection.

Check List – Before tour

- Passenger list and tour plan / schedule in the vehicle
- Weather forecast and road conditions have been evaluated and are compatible with the tour
- Trail(s) to be taken are known to be passable. Trails on glaciated terrain were inspected no more than one week earlier.
- Brief visual inspection of vehicle
- Vehicle fuel tank is full
- First aid kit in vehicle and complete
- Mobile phone and mobile communications devices are fully charged and working
- GPS device is charged, working and contains required maps / tracks
- Additional equipment as required for the tour is complete and in good order
- Check function of air compressor / tire inflation system
- Check function of recovery winch if fitted

Start of and during the tour

- Introduce guide(s) by name.
- Offer passengers to approach guides about any relevant medical conditions, recent illnesses, medications, allergies etc. that may be relevant.
- Give passengers a brief overview of the entire tour; frequently update about upcoming stops / events. Particularly note upcoming bathroom stops, especially if there won't be another for a longer time.

- Assist passengers entering / exiting the vehicle.
- Ensure passengers are wearing seat belts at all times, and are comfortable in the vehicle (air conditioning etc.)
- Vehicle speed must always be in accordance to prevailing road surface and weather conditions, even if this means changes in tour schedule.
- Offer additional information to pass the time while driving. Guides should have extensive knowledge about Icelandic life and culture, attempt to answer questions truthfully and not provide as facts any information they are uncertain about or hearsay.
- On each stop, inform passengers about the purpose of the stop, approximate duration, things of note. Particularly stress any dangers that may be present (slippery ground, waves, cliffs, etc.).
- On glaciated areas, passengers must not be allowed to exit vehicles except in safe locations
- Crevassed areas must be avoided wherever possible.
- All environmental damage from driving must be avoided or kept to an absolute minimum where unavoidable.
- Rivers must not be crossed unless the crossing can be made safely in both directions. The weather forecast must be taken into consideration when making this decision.
- Drivers / guides always have full authority to cancel or change any aspects of the tour that are deemed unsafe (black ice on roads, strong wind, etc.).

Check List – After the tour

- Check vehicle for forgotten items belonging to passengers.
- Visually inspect and clean all items used
- Refill main vehicle tank and auxiliary tank (if fitted).
- Check engine oil level, transmission fluid, power steering, and brake fluid levels. If levels are low, refill and note in trip report.
- Refill windshield washer fluid if needed.
- Clean interior and exterior vehicle.
- Fill out a short trip report indicating time of departure / return, route and distance driven, fuel consumed, names of lead / assistant guide(s), number of passengers, weather, and any items of note.

1.3. Contingency Plan

A unified contingency plan has been drafted and is available in the appendix.

The following specific risks have been identified for this tour:

- Passenger falls into crevasse
- Vehicle gets stuck in crevasse
- Vehicle unable to cross river

To address these risks, the following rules have been put in place in the Work Procedures:

- Passengers are not allowed to exit vehicles on glaciated areas, except for locations known to be safe
- Driving over crevassed areas must be avoided.
- Trails on glaciated areas are frequently inspected.
- Suitable communications devices on all tours.
- Rivers must not be crossed unless it is safe to do so in both directions.

1.4. Incident Report

A unified incident report has been drafted and is available in the appendix.

2. Safety Plan – Low Land Hikes and Hikes on Outlet Glaciers

This safety plan applies to hiking excursions on outlet glaciers (*hard ice*) and in sparsely populated areas at lower altitudes.

The term “non trivial navigation” is used to describe tours that explore areas that are outside inhabited areas, on unmarked paths, and/or in areas the guides do not know exceedingly well.

2.1. Risk Assessment and Action Plan

Risk Assessment		Service / product	Person responsible				
Date	2022-08-13	Glacier Hikes	Stephan Mantler				
Plan #	Risk	Risk description	Control measures	Severity	Likelihood	Risk Value	Action
1	See Safety Plan 1			2	2	4	Yes
2	Fall from height	Client stumbles on uneven terrain	Rules on work procedures	2	2	4	Yes
2	Blow	Blow from falling material	Rules on work procedures	3	1	3	Yes
2	Fall from height	Fall into crevasse	Rules on work procedures	3	1	3	Yes
2	Get lost	Client separated from group	Rules on work procedures	2	1	2	No
2	Heat or cold	Hypothermia due to exposure	Briefing on adequate clothing, rules on work procedures	1	1	1	No
2	Overstrain, stress	Fatigue due to improper fitness / tour duration	Private tours have flexible duration / arrangement	1	1	1	No
2	Edged material	Self injury with ice axe / crampons	Rules on work procedures	1	1	1	No

Action Plan

		Service / product	Person responsible				
	Date	Glacier Hikies	Stephan Mantler				
	2022-08-13						
Plan #	Risk	Action taken to reduce risk	Operator	Completion	Severity	Likelihood	Risk value
1	See Safety Plan 1						
2	Client stumbles on uneven terrain	Clients are required to wear adequate footwear that is compatible with crampon use.	Stephan Mantler		2	1	2
2	Blow from falling material	Helmets are required on all tours. Routes must be planned in a way that avoids exposure to unsafe areas / situations.	Stephan Mantler		2	1	2
2	Fall into crevasse	Helmets required on all tours. Climbing harnesses required on terrain where crevasses cannot be excluded with certainty. Route must avoid exposure to falling risks, or rope must be used. Guides must carry all required equipment for successful rescue / self rescue on all tours.	Stephan Mantler		2	1	2

2.2. Work Procedures

The guide to customer ratio **MUST** be at most 10 customers to each guide for sparsely populated areas, and at most 8 customers to each guide for excursions on outlet glaciers.

Clients are encouraged to fill out and carry on them a short medical fact sheet that contains information which may be relevant in emergencies (this way privacy is guaranteed, and guides will be able to access critical information if needed).

Mandatory Equipment

- **GPS and Navigation** – A handheld GPS device **MUST** be carried on all tours, including one set of spare batteries. A suitable smartphone **MAY** be substituted for the GPS, together with a fully charged powerbank. The GPS **SHOULD** include existing maps and tracks relevant to the chosen route. Either a second fully functioning GPS device, or a handheld compass and backup paper or plasticized map, at a scale no less than 1:100.000, **MUST** be carried on all tours where navigation is non-trivial.
- **Radio** – A Tetra radio **MUST** be carried on all tours.
- **Distress Signals** – A signal whistle must be carried on all tours. A flare gun and red/green flares **SHOULD** be carried on tours where navigation is non-trivial.
- **First Aid** – An extended “mountaineering” first aid kit must be carried on all tours.
- **Water** – Guides **SHOULD** carry at least 500ml of water on excursions longer than 1hr.
- **Food** – On excursions longer than 2 hours, guides **SHOULD** carry one energy bar or similar emergency ration each for two clients (ie. 3 bars for 6 clients, or 4 for 8).
- **Emergency Shelter** – Guides **MUST** carry a suitable emergency shelter, or materials to improvise one, on all excursions longer than 2 hours.
- **Spare Clothing** – Guides **MUST** carry spare wool socks and a primaloft, down, or similar insulating jacket on all excursions longer than 2 hours.
- **Dry Bag** – first aid kit, emergency shelter, and spare clothing **MUST** be packed in a dry bag, vacuum sealed bag, or other waterproof enclosure.
- **Headlight** – Guides **MUST** carry a head light and spare batteries on all tours.
- **Walking Sticks** – Guides **SHOULD** carry a collapsible set of walking sticks on all tours.

Mandatory Equipment – Glaciated Environments

In addition, for hikes onto outlet glaciers the following equipment is also mandatory:

- **Harness** – All clients **MUST** wear properly fitting harnesses
- **Helmet** – Guides and clients **MUST** wear approved helmets
- **Crampons** – Guides and clients **MUST** wear proper mountaineering type crampons (microspikes are not acceptable).
- **Ice Axe** – Clients **SHOULD** carry walking ice axes (depending on the terrain and character of the tour, guides **MAY** choose to not have clients use them). Guides **MUST** carry an ice axe or ice climbing tool as well as a spare (axe or tool)..
- **Crevasse Rescue** – All guides **MUST** carry a full crevasse rescue kit (rope, ice screws and other hardware as required to build a functioning pulley system).
- **Spare Crampon** – Guides **MUST** carry a spare set of crampons, including normal and extended center bars, or material to improvise all individual components of a lost or broken crampon.
- **Spare Clothing** – as above, but must be carried on all tours.

Guides

- All guides **MUST** have a current Wilderness First Responder (WFR), equivalent, or better certification.
- All guides **MUST** have an AIMG Hard Ice 2, equivalent, or better qualification for hikes on

outlet glaciers and AIMG Alpine Trekking 1, equivalent, or better qualification for lowland hikes into remote areas.

- All guides MUST be fluent in English, or in the native language of the group they are traveling with.
- New guides MUST receive training by lead guides or other suitable staff concerning the vision, ideals and guidelines of the company, communication with guests, and group management.
- All guides MUST be aware of the Civil Protection emergency response plans and regulations (see), and follow them in full if necessary.
- All guides MUST practice crevasse rescue at least twice per year.
- All guides MUST practice avalanche search and rescue at least once per year.

Check List – Before Tour

- Passenger list and tour plan / schedule finalized
- Medical factsheets printed for each client to fill out and carry on them (has already been sent out by mail beforehand).
- Weather forecast and road conditions have been evaluated and are compatible with the tour
- Trail(s) to be taken are known to be passable. Trails on glaciated terrain were inspected no more than one week earlier.
- First aid kit in backpack is complete
- Mobile phone and Tetra radio are charged and working
- GPS device working and contains required maps / tracks
- Safety equipment is available and complete for all clients, including extra sizes.

Start of and during the Tour

- Introduce guide(s) by name.
- Offer passengers to approach guides about any relevant medical conditions, recent illnesses, medications, allergies etc. that may be relevant from the outset. Pass out medical information factsheets for clients to fill out and keep with them.
- Give passengers a brief overview of the entire tour, with an emphasis on safety aspects.
- Guides assist customers with adjustment of helmets, crampons, and any other equipment.
- Guides must always choose the safest, and easiest route and avoid unnecessary exposure to high risk areas.
- Guides must ensure all clients remain in a compact group, and nobody falls behind to avoid separation.
- Guides must constantly evaluate the condition of each participant, with particular attention to onset of fatigue or hypothermia.
- River crossings should be avoided if possible.
- Tours designed to lead into more difficult terrain must start out with easy terrain for clients to familiarize themselves with the environment, and to give guides an opportunity to gauge their abilities.
- Tours onto glaciated terrain must start with an introduction to proper crampon techniques as required for the anticipated terrain.
- Frequent stops should be made to give customers time to take pictures, etc.

Check List – After the tour

- Check all equipment returned by clients for completeness. All items should be cleaned and

in good order before putting them in storage.

- Save and archive GPS track of the tour.
- Fill out a short trip report indicating time of departure / return, route and distance taken, names of lead / assistant guide(s), number of passengers, weather, and any items of note.

2.3. Contingency Plan

A unified contingency plan has been drafted and is available in the appendix.

2.4. Incident Report

A unified incident report has been drafted and is available in the appendix.

3. Safety Plan 3 – Alpine Trekking and High Glacier Excursions

This safety plan applies to hiking or skiing excursions on high alpine, snow covered terrain and high glaciers (such as Hvannadalshnúkur, or crossing the Vatnajökull Ice Cap).

3.1. Risk Assessment and Action Plan

Risk Assessment		Service / product	Person responsible				
Date	2022-08-13	Alpine Trekking	Stephan Mantler				
Plan #	Risk	Risk description	Control measures	Severity	Likelihood	Risk Value	Action
1	See Safety Plan 1						
2	See Safety Plan 2						
3	Exhaustion	Overstrain due to difficult progress	Rules on work procedures	2	2	4	Yes
3	Equipment failure	Failure of critical navigation or other equipment (ski binding, etc.)	Rules on work procedures	3	1	3	Yes
3	Severe weather	Severe weather exposure	Rules on work procedures	3	2	6	Yes

Action Plan

Date		Service / product		Person responsible	
2022-08-13		Alpine Trekking		Stephan Mantler	
				Risk after measures taken	
Plan #	Risk	Action taken to reduce risk	Operator	Completion	Severity
1	See Safety Plan 1				Risk value
2	See Safety Plan 2				Likelihood
3	Exhaustion	Pre-defined progress and weather checkpoints during the tour where GO / NO GO decisions must be made.	Stephan Mantler		2
3	Equipment failure	Critical navigation equipment must be triply redundant. Guides must be able to improvise or repair any other equipment that may fail in a way that prevents progress.	Stephan Mantler		2
3	Severe weather	Precision forecasts must be used if weather systems are not favorable. Pre-defined progress and weather checkpoints during the tour where GO / NO GO decisions must be made.	Stephan Mantler		2
					1
					2

3.2. Work Procedures

The guide to customer ratio **MUST** be at most 8 customers to each guide for tours on well known and established routes (Sandfellsleið, ...) and at most 6 customers to each guide otherwise.

On glaciated terrain, the minimum group size **SHOULD** be at least three (one guide with two clients). A 1:1 guide ration is possible only if crevasse conditions are known to be stable and the client has substantial prior experience.

Clients are encouraged to fill out and carry on them a short medical fact sheet that contains information which may be relevant in emergencies (this way privacy is guaranteed, and guides will be able to access critical information if needed).

Guides **MUST** set down progress and weather decision checkpoints for the chosen route, where both the group's actual progress and weather development are evaluated against the expected situation. For each such checkpoint, a suitable "abort plan" **MUST** be defined (either turning around, or using an alternative escape route). Any significant delays or deteriorating weather **MUST** lead to a NO GO decision and the group turned around. Guides have full authority on making a NO GO decision, independent of any promises made by third parties or the personal desires of the group to keep going.

In preparation, a detailed weather forecast **MUST** be evaluated. Multiple sources **SHOULD** be used whenever available, to compare the bandwidth of weather development. Commercial precision forecasts **MUST** be used if deteriorating conditions may occur within the maximum expected duration of the tour.

Mandatory Equipment

- **GPS and Navigation** – Three, independent GPS devices **MUST** be carried on all tours, including a fully charged powerbank that can be used to charge at least two of the devices. One of the devices **MAY** be a suitable smartphone. The GPS **MUST** include existing maps and tracks relevant to the chosen route. A handheld compass, and if available backup paper or plasticized map, at a scale no less than 1:100.000, **MUST** also be carried.
- **Radio** – A Tetra radio **MUST** be carried on all tours. UHF radios **SHOULD** be carried by the guide and the last person in the group to facilitate communication between the ends of the rope team.
- **Distress Signals** – A signal whistle must be carried on all tours. A flare gun and red/green flares **SHOULD** be carried.
- **First Aid** – An extended "mountaineering" first aid kit must be carried on all tours.
- **Water** – Guides **SHOULD** carry at least 1000ml of water.
- **Food** – guides **MUST** carry one energy bar or similar emergency ration each for two clients (ie. 3 bars for 6 clients, or 4 for 8), or ensure similar rations are carried between clients additional to their planned food supplies.
- **Emergency Shelter** – Guides **MUST** carry a suitable emergency shelter, or materials to improvise one.
- **Spare Clothing** – Guides **MUST** carry spare wool socks, gloves, woolly hat, and a primaloft, down, or similar insulating jacket.
- **Dry Bag** – first aid kit, emergency shelter, and spare clothing **MUST** be packed in a dry bag, vacuum sealed bag, or other waterproof enclosure.
- **Headlight** – Guides **MUST** carry a head light and spare batteries on all tours.
- **Walking Sticks** – Guides **SHOULD** carry a collapsible set of walking sticks on all tours.
- **Avalanche and Snow Kit** – Guides **MUST** carry an avalanche probe and shovel on all tours. Avalanche beacons **MUST** be carried by all group members if the route includes sustained slopes between 25° and 60°.
- **Snow Anchor and Rope** – Guides **MUST** carry a snow anchor or material to build one, and at least 30m of rope.

Mandatory Equipment – Glaciated Environments

In addition, for hikes crossing glaciated terrain the following equipment is also mandatory:

- **Harness** – All clients **MUST** wear properly fitting harnesses
- **Helmet** – Guides and clients **MUST** wear approved helmets in areas with exposure to rock fall or other overhead or crevasse hazards.
- **Crampons** – Guides and clients **MUST** carry proper mountaineering type crampons if hard snow / ice conditions are expected. If soft snow conditions are known to exist throughout the tour, guides **SHOULD** carry a set of spare crampons.
- **Ice Axe** – Clients **SHOULD** carry walking ice axes (depending on the terrain and character of the tour, guides **MAY** choose to not have clients use them). Guides **MUST** carry an ice axe or ice climbing tool as well as a spare (axe or tool)..
- **Crevasse Rescue** – All guides **MUST** carry a full crevasse rescue kit (rope, ice screws, snow anchor, and other hardware as required to build a functioning pulley system).
- **Spare Crampon** – Guides **MUST** carry a spare set of crampons, including normal and extended center bars, or material to improvise all individual components of a lost or broken crampon.

Guides

- All guides **MUST** have a current Wilderness First Responder (WFR), equivalent, or better certification.
- All guides **MUST** have an AIMG Hard Ice 2 and AIMG Alpine Trekking 1, or better, certification.
- All guides **MUST** be fluent in English, or in the native language of the group they are traveling with.
- New guides **MUST** receive training by lead guides or other suitable staff concerning the vision, ideals and guidelines of the company, communication with guests, and group management.
- All guides **MUST** be aware of the Civil Protection emergency response plans and regulations, and follow them in full if necessary.
- All guides **MUST** practice crevasse rescue at least twice per year.
- All guides **MUST** practice avalanche search and rescue at least once per year.

Check List – Before Tour

- Passenger list and tour plan / schedule finalized
- Medical factsheets printed for each client to fill out and carry on them (has already been sent out by mail beforehand).
- Weather forecast and road conditions have been evaluated and are compatible with the tour
- Trail(s) to be taken are known to be passable. Trails on glaciated terrain were inspected no more than one week earlier.
- First aid kit in backpack is complete
- Mobile phone and Tetra radio are charged and working
- GPS device working and contains required maps / tracks
- Safety equipment is available and complete for all clients, including extra sizes.

Start of and during the Tour

- Introduce guide(s) by name.
- Offer passengers to approach guides about any relevant medical conditions, recent illnesses, medications, allergies etc. that may be relevant from the outset. Pass out medical infor-

mation factsheets for clients to fill out and keep with them.

- Give passengers a brief overview of the entire tour, with an emphasis on safety aspects.
- Guides assist customers with adjustment of helmets, crampons, and any other equipment.
- Guides must always choose the safest, and easiest route and avoid unnecessary exposure to high risk areas.
- Guides must ensure all clients remain in a compact group, and nobody falls behind to avoid separation.
- Guides must constantly evaluate the condition of each participant, with particular attention to onset of fatigue or hypothermia.
- River crossings should be avoided if possible.
- Tours designed to lead into more difficult terrain must start out with easy terrain for clients to familiarize themselves with the environment, and to give guides an opportunity to gauge their abilities.
- Tours onto glaciated terrain must start with an introduction to proper crampon techniques as required for the anticipated terrain.
- Frequent stops should be made to give customers time to take pictures, etc. Guides should remind customers to consume food and hydrate throughout the tour.
- Progress and weather checkpoints must be observed.

Check List – After the tour

- Check all equipment returned by clients for completeness. All items should be cleaned and in good order before putting them in storage.
- Save and archive GPS track of the tour.
- Fill out a short trip report indicating time of departure / return, route and distance taken, names of lead / assistant guide(s), number of passengers, weather, and any items of note.

3.3. Contingency Plan

A unified contingency plan has been drafted and is available in the appendix.

3.4. Incident Report

A unified incident report has been drafted and is available in the appendix.

4. Safety Plan – 4. Ice Caves

This safety plan applies to excursions into ice caves, that is to say into subglacial spaces. As such, it is an extension of the Safety Plan for mountain / glacier hikes. It does **not** apply to ice caves formed by **geothermal** processes, but only for ice caves where the mechanism is either **subglacial meltwater**, or it is a **randkluft** formation (glacial separation from the surrounding rock face).

4.1. Risk Assessment and Action Plan

Risk Assessment		Service / product	Person responsible					
		Ice Caves	Stephan Mantler					
Date	2022-08-13	Risk	Risk description	Control measures	Severity	Likelihood	Risk Value	Action
SP	1	See Safety Plan 1						
	2	See Safety Plan 2						
	4	Blow	Blow from falling material	Rules on work procedures. Clients must avoid exposed areas (close to entrance)	3	2	6	Yes
	4	Hazardous Mat.	Toxic fumes	Geothermal ice caves are forbidden	3	2	6	Yes
	4	Drowning	Fall into glacial river	Rules on work procedures.	3	1	3	Yes
	4	Blow	Head struck against low ceiling	Helmets worn at all times; people reminded of low ceiling upon entering cave	1	1	1	No
	4	Heat or cold	Stepped into wet snow / water in cave	Advise people to avoid unstable areas in cave, evaluate changing water levels.	1	1	1	No
	4	Nature	Rising water levels in cave	Monitor weather, cancel / reschedule if risk of rising water levels present.	1	1	1	No

22 Action Plan

		Service / product	Person responsible				
	Date	Ice Caves	Stephan Mantler				
			Risk after measures taken				
Plan #	Risk	Action taken to reduce risk	Operator	Completion	Severity	Likelihood	Risk value
1	See Safety Plan 1						
2	See Safety Plan 2						
4	Blow from falling material	Guides must evaluate ceiling area before entering and during visit. Unstable roof areas must be avoided or removed in a controlled fashion.	Stephan Mantler		2	1	2
4	Fall into glacial river	Evaluate safety of ice cave visit in conditions that may result in unsafe water levels; avoid exposure to areas where clients could fall into water.	Stephan Mantler		2	1	2
4	Toxic fumes	Ice caves formed through geothermal processes must not be entered.	Stephan Mantler		2	0	0

4.2. Work Procedures

The guide to customer ratio **MUST** be at most 10 customers to each guide for ice caves where the inside of the cave provides a simple and straightforward environment, or 6:1 in more complicated scenarios.

The Mandatory Equipment list for low land hikes apply here as well, with the following additions / changes:

Mandatory Equipment

- **Headlight** – All clients **SHOULD** be equipped with headlights. Guide **MUST** carry a personal head light, plus one additional spare head light and spare batteries on all tours.
- **Microspikes** – All clients **MUST** be equipped with microspikes if slippery conditions (hard compacted snow, soft surface ice) exist. If the tour leads over glacier ice, full glacier equipment **MUST** be used (crampons, harnesses, etc.).

Guides

- All guides **MUST** have a current Wilderness First Responder (WFR), equivalent, or better certification.
- All guides **MUST** have an AIMG Ice Cave 1 and AIMG Hard Ice 2, equivalent, or better qualification.
- All guides **MUST** be fluent in English, or in the native language of the group they are traveling with.
- New guides **MUST** receive training by lead guides or other suitable staff concerning the vision, ideals and guidelines of the company, communication with guests, and group management.
- All guides **MUST** be aware of the Civil Protection emergency response plans and regulations, and follow them in full in case of natural disasters and other emergencies.
- All guides **MUST** practice crevasse rescue at least twice per year.

Check List – Before Tour

- Passenger list and tour plan / schedule finalized
- Medical factsheets printed for each client to fill out and carry on them (has already been sent out by mail beforehand).
- Weather forecast and road conditions have been evaluated and are compatible with the tour
- Trail(s) to be taken are known to be passable. Trails on glaciated terrain were inspected no more than one week earlier. Ice caves are known to be in safe condition.
- First aid kit in backpack is complete
- Mobile phone and Tetra radio are charged and working
- GPS device working and contains required maps / tracks
- Safety equipment is available and complete for all clients, including extra sizes.

Start of and during the Tour

- Introduce guide(s) by name.
- Offer passengers to approach guides about any relevant medical conditions, recent illnesses, medications, allergies etc. that may be relevant from the outset. Pass out medical information factsheets for clients to fill out and keep with them.
- Give passengers a brief overview of the entire tour, with an emphasis on safety aspects.
- Guides assist customers with adjustment of helmets, crampons, and any other equipment.
- Guides must always choose the safest, and easiest route and avoid unnecessary exposure to high risk areas.

- River crossings should be avoided if possible.
- Tours designed to lead into more difficult terrain must start out with easy terrain for clients to familiarize themselves with the environment, and to give guides an opportunity to gauge their abilities.
- Tours onto glaciated terrain must start with an introduction to proper crampon techniques as required for the anticipated terrain.
- Upon arrival but before entering the ice cave, guides reiterate all relevant safety aspects:
 - Avoid sections of thin roof (in particular at the entrance and around openings)
 - Be vigilant about suspended material in the ceiling, on shelves, etc.
 - Watch for water / wet spots on the ground
 - Helmets must remain on heads at all times; careful about low ceilings
 - Clearly designate unsafe areas (use ropes, an ice axe, or other markers)
- Guides must constantly monitor the ice cave for possible safety concerns.
- Guides must constantly evaluate client conditions for signs of fatigue, hypothermia, or other discomfort.
- Frequent stops should be made to give customers time to take pictures, etc.
- Vaping / smoking and food consumption are not allowed inside ice caves.

Check List – After the tour

- Check all equipment returned by clients for completeness. All items should be cleaned and in good order before putting them in storage.
- Save and archive GPS track of the tour.
- Fill out a short trip report indicating time of departure / return, route and distance taken, names of lead / assistant guide(s), number of passengers, weather, and any items of note.

4.3. Contingency Plan

A unified contingency plan has been drafted and is available in the appendix.

4.4. Incident Report

A unified incident report has been drafted and is available in the appendix.

A. Appendix

The attached **Quick Fact Sheet** can be sent to customers to give them a good overview of the upcoming activity. The same information can also be conveyed by other means (often most of this is already communicated in our emails prior to booking).

The **Contingency Plan** serves as guidance in case something does go wrong, and provides the necessary structure to handling such a situation.

The **Incident Report** must be used to document any incidents of note, including “near misses” and those observed from other tours / groups.

The **Trip Sheet** records essential information about each tour and is valuable to gain insights on average tour durations, equipment use, etc.

B. Quick Fact Sheet

Thank you for booking your tour with us! To ensure an enjoyable and safe experience, we have collected a few suggestions that we hope you will find helpful.

If you have any questions, comments or suggestions, please do not hesitate to be in touch.

B.1. What to Expect

Our tours generally start either at your accommodation or at another previously arranged meeting point. We will have been in contact beforehand, discussing the weather conditions and the resulting options for our tour. After a brief introduction and going over some last-minute details, there is almost always a superjeep drive – sometimes short, sometimes long, often bumpy – that will get us to the trail head.

Here we will go over any additional items we will need (depending on the activity, this may include crampons, ice axes, and a full set glacier safety gear, or just whatever you choose to bring if it's an easy hike). If any of the equipment is unfamiliar to you, we will include a short introduction to useful basic techniques. We generally “ease into” the terrain, beginning with a warm up to familiarize ourselves with the environment and gear, and then gradually exploring more adventurous terrain.

Throughout the tour we'll make frequent stops to take pictures, point out things of interest, and generally get a “feel” for the environment we are passing through. There is typically at least one longer stop where we rest for a while, have a snack and get a good look around. Thanks to the flexibility of being on a private tour, any stops and routes we are taking are merely suggestions based on our experience and knowledge of the area. We will try very hard to accommodate any change of plans that may present itself during the day.

B.2. Clothing

Venturing onto the glacier is almost always a chilly experience, and good outdoor clothing can make all the difference. Unfortunately, we do not have clothing or footwear for rent, which is why it is particularly important to come with the right gear. As a general rule of thumb, dressing one season ‘colder’ than you would expect will put you in a good ballpark.

We recommend thermal underwear and a good, windproof outer layer (mountaineering / hiking pants). Leggings or jeans are not a sensible choice. On the upper body, three layers are usually the best choice. Good gloves and a beanie or buff (fits under the helmet) complete a functional outfit. If the weather forecast is anything but perfect, a good waterproof outer shell can make the difference between an adventurous day and a miserable one.

For activities that venture onto the glacier, stable and secure hiking footwear is required. Low cut shoes that do not cover the ankle and “slip-on” boots (without laces) are a safety hazard and not acceptable. “Crampon compatible” mountaineering boots can be an advantage but are not strictly necessary except for ice climbing activities.

For longer tours where we might be taking extended breaks (for example, a longer hike to an ice cave) we strongly recommend bringing an extra warm jacket to wear only when resting to avoid getting cold.

B.3. What to Bring

The following checklist is a suggestion only and not all items are relevant on all tours, but it may help you identify valuable items that could have been missed.

All Tours

- | | | |
|---|---|--|
| <input type="checkbox"/> Waterproof outer shell | <input type="checkbox"/> Buff or scarf | <input type="checkbox"/> Extra fleece or down jacket |
| <input type="checkbox"/> Camera | <input type="checkbox"/> Water or other (500ml) | <input type="checkbox"/> Sunglasses / Ski goggles |
| <input type="checkbox"/> Thin and/or thick gloves | <input type="checkbox"/> Food / snacks | <input type="checkbox"/> Beanie or wooly hat |
| <input type="checkbox"/> Walking sticks | <input type="checkbox"/> Tissues | <input type="checkbox"/> Extra pair of socks |
| <input type="checkbox"/> Comfortable backpack | <input type="checkbox"/> Sunscreen (summer) | <input type="checkbox"/> Medical factsheet (see below) |

- Solid footwear (no sneakers / dress shoes / designer boots)

Ice Caves (additional items)

- Tripod (ideally w\ spikes) lens cloth or similar Extra batteries for camera
- Pen- or Headlight (ideally with low-intensity red LED light)
- Thermos / hot beverage Waterproof camera cover (garbage bags work well too)

B.4. Medical Considerations

Our adventure will lead us into the Icelandic wilderness, and by booking this tour you confirm that you are generally healthy and physically fit for the chosen activity. Your safety and wellbeing is our highest priority, and we strongly recommend you notify us of any relevant medical conditions. This will ensure that our guides can design the tour accordingly, and that they can respond quickly and accurately in the unlikely event of a medical emergency.

Please consider filling out the following fact sheet and carrying it on your tour.

<input type="checkbox"/> Name:	<input type="checkbox"/> Year of Birth:
<input type="checkbox"/> Nationality:	<input type="checkbox"/> Emergency Contact (name & phone):
<input type="checkbox"/> Blood type:	_____
<i>(please check all that apply)</i>	
<input type="checkbox"/> Diabetes	<input type="checkbox"/> Asthma
<input type="checkbox"/> High blood pressure	<input type="checkbox"/> Epilepsy
<input type="checkbox"/> Hemophilia	<input type="checkbox"/> Pregnant (_____ weeks at time of tour)
<input type="checkbox"/> I carry an EpiPen	
Allergies to <input type="checkbox"/> food / <input type="checkbox"/> pollens / <input type="checkbox"/> latex / <input type="checkbox"/> stinging insects / <input type="checkbox"/> medications	
- if food or medications, please specify: _____	
<input type="checkbox"/> Current medications (please mark any you need to take regularly)	

<input type="checkbox"/> Recent illnesses or relevant injuries	

Haf-MedInfo-1.1

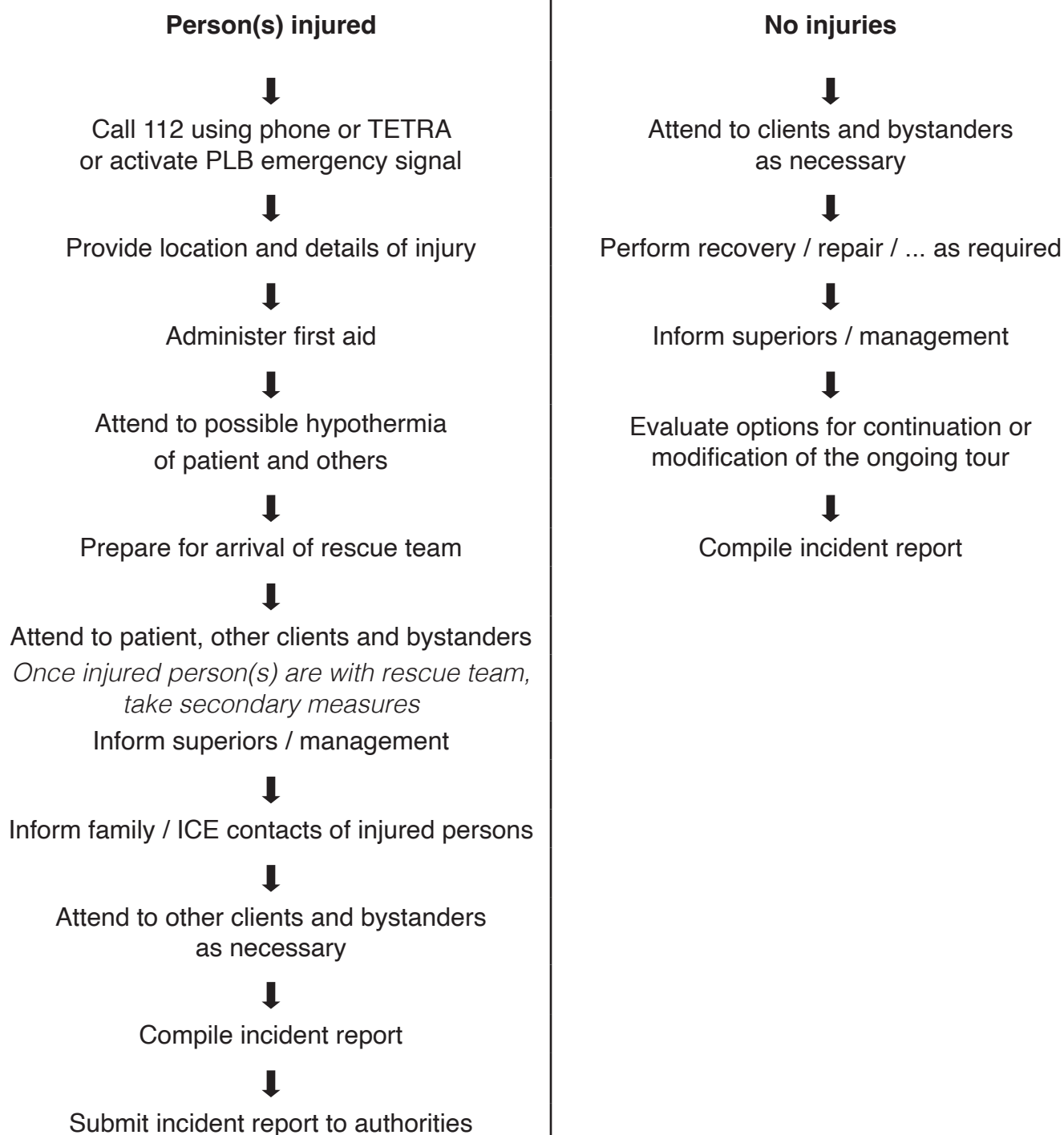
C. Contingency Plan

This contingency plan serves as an outline for all major incidents, to guarantee all required actions are taken. Guides will need to adjust the order of steps according to the situation at hand, to ensure the best possible result for all people involved.

A **major incident** is any incident in which a person suffers an injury or medical emergency requiring evacuation or medical treatment, or any other incident that significantly alters the nature and timing of the tour (vehicle breakdown, natural disaster, etc.)..

Háfjall ehf. is a small company generally with no superiors to be informed, but this step is deliberately kept in the plan for guides to consider if any business partners or other stakeholders may need to be informed (for example, if a tour was organised through a third party).

Assess situation and ensure safety for all clients, guides, and others



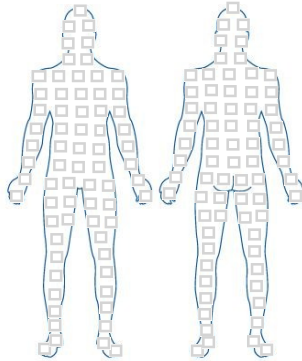
D. Incident Report

1. Almennar upplýsingar

Alvarleiki atviks: Slys <input type="checkbox"/> "Næstum því" slys <input type="checkbox"/> Annað: _____
Tímasetning atviks: _____ Skráð af: _____ Stjórnandi ferðar: _____ Nafn ferðar: _____
Staðsetning atviks: _____ GPS hnit: N _____ og V _____
Lýsing á atviki: <input type="text"/>
Til hvaða aðgerða greip stjórnandi: <input type="text"/>

2. Persónulegar upplýsingar athugið að nota skal eitt eyðublað á hvern einstakling

Nafn farþega: _____ Sími: _____ Netfang: _____
Lýsing á áverka: <input type="text"/>
Merkið inn á teikninguna staðsetningu á áverkum
Var viðkomandi fluttur á sjúkrahús. Já <input type="checkbox"/> Nei <input type="checkbox"/> Hafnað af viðskiptavini <input type="checkbox"/>
Fluttur með sjúkrabíl. Já <input type="checkbox"/> Nei <input type="checkbox"/> Fluttur hvernig _____
Lögregla kölluð til. Já <input type="checkbox"/> Nei <input type="checkbox"/>
Aðrir viðbragðsaðilar, hverjir: <input type="text"/>



3. Farþegar

Þurftu aðrir farþegar á áfallahjálpu að halda? Já <input type="checkbox"/> Nei <input type="checkbox"/>
Var áfallahjálpu boðin fram? Já <input type="checkbox"/> Nei <input type="checkbox"/> Farþegar afþökkuðu <input type="checkbox"/>
Aðrar ráðstafanir gerðar varðandi farþega: <input type="text"/>
Sjónarvottar að atviki:
Nafn: _____ Sími: _____ Netfang: _____ Þjóðerni: _____
Nafn: _____ Sími: _____ Netfang: _____ Þjóðerni: _____
Nafn: _____ Sími: _____ Netfang: _____ Þjóðerni: _____
Nafn: _____ Sími: _____ Netfang: _____ Þjóðerni: _____

4. Stjórnun

Stjórnanda fyrirtækis tilkynnt? Hverjum? _____

Tímasetning tilkynningar _____

Tryggingarfélagi tilkynnt um atvikið? Já Nei

Annað sem þarf að koma fram:

Undirskrift þess er skýrslu ritaði

Undirskrift stjórnanda ferðar ef annar

Aðgerðir sem gripið var til í framhaldi af atviki ef einhverjar:

E. Trip Sheet

Tour:

Date:

Start Time:

End Time:

Lead & assistant Guide(s):

Location / Route:

Vehicle Used:

km Start:

km End:

(if more than one, list others under general remarks)

No. clients:

Weather:

General remarks:

(gear used, notes on conditions, etc.)

F. Inspection Plan

This inspection plan is intended as a guideline for inspection of items used throughout our tours. All items used during tours must be cleaned and checked for damage before being put back into storage, but this plan ensures all items – even if used rarely – are inspected at adequate intervals. For each item, the manufacturer recommended inspection procedures apply and should be referred to (for example, to determine acceptable vs. unacceptable wear on a carabiner). The maximum age serves as reference only and may be shorter if recommended by the manufacturer.

Item(s)	Frequency	Particular Inspection Points	Max. Age
VHF, UHF, TETRA, tracking device(s) and avalanche transceivers	Yearly	Function (send and receive calls, no sticky buttons, send and receive messages). Battery lifetime and charge are nominal.	n/a
Harnesses	Yearly	Check for visual damage and wear (especially tie-in point and size adjusters), and age	5 years
Crampons	Yearly	Inspect size adjustment function, center bar for bending / damage, spike sharpness, strap for fraying	n/a
Microspikes	Yearly	Check for damage in rubber (tearing), wear on metal parts	n/a
Ice Axes, Walking Sticks	Yearly	Check for overall damage, walking stick size adjustment works	n/a
Helmets	Yearly	Overall damage and wear, size adjusters work as designed, age	10 years
Ropes	Monthly	Mantle wear, core shape (no flat or stiff parts), ends fraying, end labels are present and correct (length marked), age	5 years
Carabiners and other climbing hardware (metal)	Yearly	Wear, damage, corrosion, proper function (carabiner gates open / close / lock as intended, etc.)	n/a
Vehicle Tire Inflation Systems	Yearly	Check overall system for air leaks (especially rotary connectors), air compressor performance.	n/a
Vehicle Tool Kit	Yearly	Check for completeness and overall wear	n/a
Head lamps	Yearly	Function check, battery charge level	n/a
Puncture Repair Kits	Yearly	Check for completeness	n/a
Vehicles	Yearly	Presence of all required documentation and function of any auxillary equipment installed (pneumatic steps, PA system, ...)	n/a
GPS	Yearly	Function, battery lifetime and charging, map updates, routes and other data up to date	n/a
First Aid kits	Monthly	Completeness, expiry dates of individual items	3 years
Emergency Shelters	Yearly	Check for visible damage / wear	n/a
Dry Bags	Yearly	Ensure they are waterproof (easy to miss small pictures)	n/a
Avalanche / Snow Kit	Yearly	Check for completeness, wear & damage	n/a