Haute Glacial Route Report

Started by George Fowkes, Florence Flowkes, Yordan Ignatov and Tim Bickersteth

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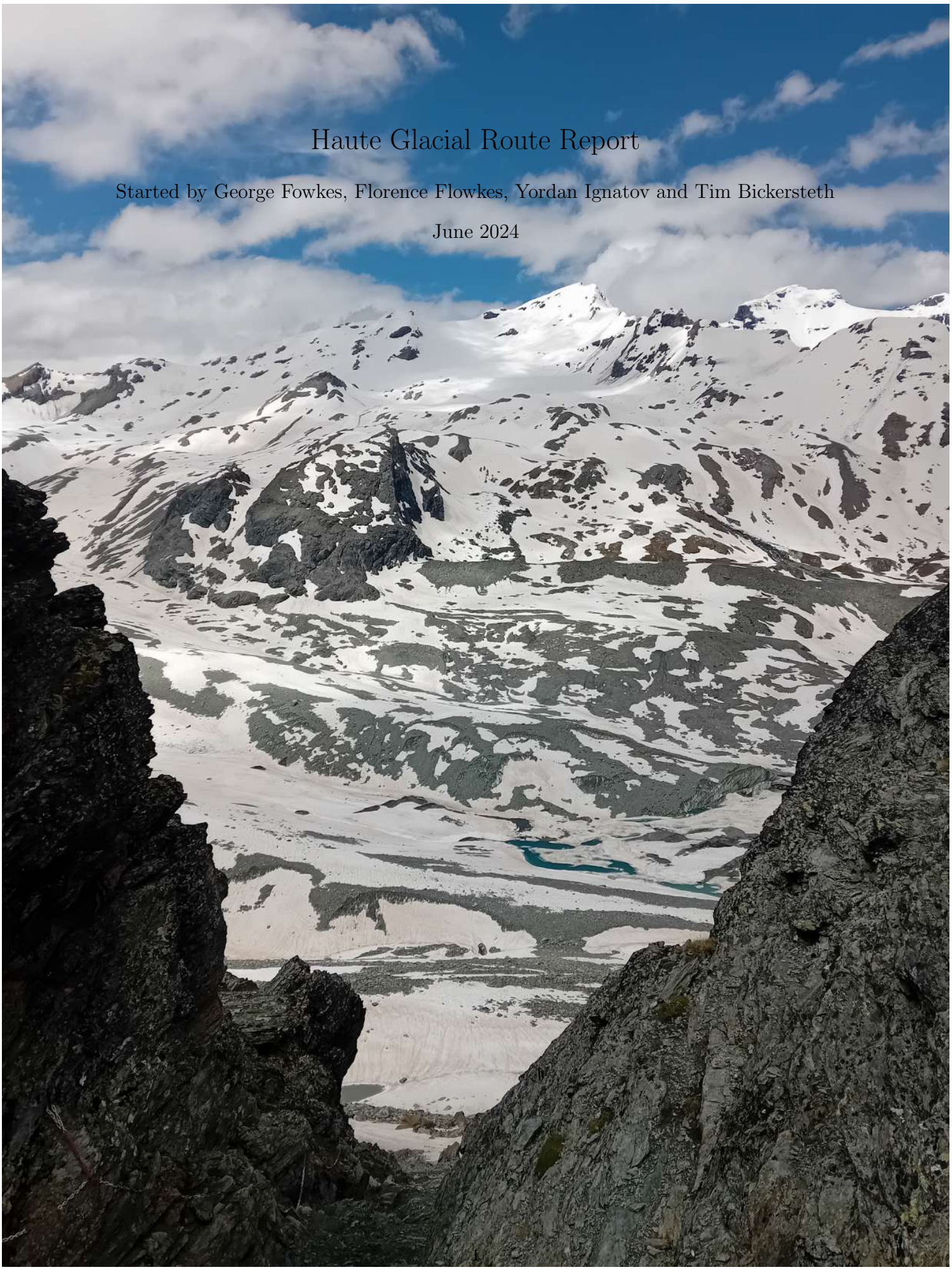

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1 Introduction

Expeditions are and should be both a planning exercise, an enjoyable and exciting time as well as a learning experience. As you will read from this report, this particular expedition was certainly a learning exercise. Let us first introduce the route....

The Haute Route Glaciere is a classic mountain route from the epicentre of mountaineering in Europe across the highest valleys of the Alps, which is steeped in history. We planned to follow in the footsteps of early members of the Alpine Club who first pioneered the route in 1861. There are a number of variations of the Haute Route. This particular version sticks to the glaciers which lie high on the valleys and passes, which poses a more technical challenge on top of the physical.

2 Original Haute Route plan

Our initially devised route followed a condensed version of the high-level Haute route, from Bourg-Saint-Pierre to Zermatt. This involves six days of travel, largely at altitude and on glaciers, with a total elevation gain of over 6km while covering 72km horizontally.

3 Team Biographies

Our team composed of two Imperial Students - Yordan and Tim - and the father, daughter pair George and Flo.

3.1 Yordan Ignatov - Team Leader

3.1.1 Background

Yordan is a third-year Imperial physics PhD student who, over an 8-year period, has slowly drifted from the vice grip of indoor boulder-bro, through sport climbing, trad climbing, winter climbing, and now simply enjoys a long, hard, technical, multi-day camping trip.

3.1.2 Experience

- Scottish winter up to grade III lead
- Alpine routes: Arête à Laurence (PD), Gran Paradiso (4061m)
- Attended guided glacier walking and crevasse rescue course in Chamonix

3.2 George Fowkes - Equipment Manager

3.2.1 Background

When he's not greenifying the UK production industry as BasePower co-founder and director, George is a keen promoter of the outdoors for young people, running regular "Introduction to the Mountains" weekends for disadvantaged children in Manchester. The Haute Route Glaciere is a longstanding ambition of his.

3.2.2 Experience

- Low-level Haute route (10 days)
- Winter Arctic warfare course in Norway with the Royal Engineers in the late 80's
- Just under 6 months at altitude on 3 separate expeditions to Pakistan in the early and mid 90's, including a 5,600m pass
- Qualified Summer Mountain leader (First Aid Certified)
- Attended guided glacier walking and crevasse rescue course in Chamonix
- Summited Gran Paradiso (4061m)

3.3 Florence Fowkes - Fitness manager, team medic

3.3.1 Background

Florence is currently working as a junior doctor in Glasgow after recently completing her medical degree at UCL, but she would much rather be spending all of her time out in the Scottish Highlands. She has a passion for multi-day hiking and mountains in general.

3.3.2 Experience

- Scottish winter up to grade III second
- Alpine routes: Arête à Laurence (PD), Gran Paradiso (4061m)
- Attended guided glacier walking and crevasse rescue course in Chamonix
- Low-level Haute Route (10 days)
- Solo trekked a section of the Haute route Pyrenees from Refuge de Pombie to Refuge la Soula (8 days)

3.4 Tim Bickersteth - Photographer and documenter

3.4.1 Background

Tim is a third year geologist at Imperial with a passion for rocks... and climbing them. An avid cyclist-turned mountain man.

3.4.2 Experience

- Secured Exploration board funding for bikepacking trip across Europe
- First-Aid certified (level 3)
- Bike packing and camping the Hebridean Way (2 weeks)
- Winter walking experience in Scotland
- Outdoor sport climbing experience in Bosnia

3.5 Expedition Roles

As a four person team with varying levels of experience, roles on this trip were usually determined on skill. Overall decisions were made as a group - although not all were wise.... Roles included navigation which mainly ended up being Yordan and Florence's responsibility whereas Tim tried his best on cooking duty where possible.

4 Trip Diary

If anyone reading this has done an expedition they will understand that they are adventures but are also learning curves...

Day 0: Bourg St. Pierre

Arriving in sleepy Bourg St. Pierre, we met up as a team amongst the cows and the drizzle having arrived from different locations in Europe. We had a day before setting off to go over our kit, food and glacier skills. With one last supper in our bellies we went to sleep within snoring distance of each other, ready for our first big day.

Day 1: Where it all went wrong

The next morning, the Swiss valleys welcomed us into their arms with huge vistas of the Alps. Setting off from our hostel we were in high spirits, one may say dangerously high. Following an unusually snowy winter and heavy rains during the week prior, we found that our original route up the valley to the Cabane de Valsorey was impassable. The rivers were burgeoning with meltwater, bursting their banks in many places, rendering many river crossings impossible.
Meeting one such river crossing, we decided to turn back and make our way up an alternate route to the Cabane

- one that followed a ridgeline much higher up on the mountain. After having spent a few hours ascending (and getting pretty wet), we finally met the ridge and continued onwards towards the Cabane.

A map of the first day. In red, the originally planned route. We turned back at the flooded river crossing, roughly following the black dotted line up to the ridge, before meeting the snow slope (encompassed by blue dots).

As we climbed along the ridge-line we quickly met our first snow-field. As the weather came in we put on our crampons on, and began traversing the steep snow. Unfortunately, George slipped on the slushy snow and dislocated his shoulder. With the quick thinking of several members of the team and a lot of grit from George, we all safely made it across and called mountain rescue. After an exciting helicopter trip for all, the remainder of the team were deposited at the start location of the expedition 10 hours after they left it.

Days 2-4: the gang gets smaller...

Thankfully, this experience did not cut the trip short. After checking that the member with the dislocated shoulder was okay - he decided to fly back home the next day - we decided what to do next. Wanting something a little more relaxing after the high-stakes experience of day 1, we dumped our glacier travel kit with George, who was on his way home, and made our way to Arolla in the search of some big hikes.

The group got the chance to regain their confidence on snow after the 'incident', and the days were fantastic with incredible views, a bit of scrambling, loads of dehydrated meals and some very cold dips.

Days 5-7

Deciding that we'd seen enough of the non-glaciated routes around Arolla, we took a bus further out of the valley to La Sage. The next morning, we hiked over the Col du Tsate, into the neighbouring valley, and up to the Cabane de Moiry.

We spent the afternoon waiting out the poor weather in the Cabane trying to figure out how to play a board game with French instructions, and admiring the floor-to-ceiling views of the glacier de Moiry.

Early the next morning, we hiked up to our final destination - the Col du Pigne, saying goodbye to Tim - who had to run off to catch his bus - partway up.

5 Logistics

5.1 Training

We all spent a weekend together undertaking winter skills in the Cairngorms. This was good training due to the heavy snowfall experienced in the Alps this summer but in reality more snow skill training would certainly have been useful.

5.2 Travel Arrangements

Travelling in and getting to Switzerland is incredibly easy. Swiss transport, although expensive, is amazingly efficient. We all flew to Geneva and travelled via trains and bus to Bourg St Pierre to start the route.

5.3 Expenditure

Description	**Cost**
Travel	£450
Accomodation	£1000
Food	£400
Insurance	£120
Equipment	£500
Total	£1,570

Due to the unfortunate change of plans we were over budget on accommodation and food. This is mainly due to the fact that instead of staying in relatively priced Cabanes we stayed in hotels which were more expensive. Also as we had shops that were accessible, we chose to eat fresh food rather then dehydrated meals.

5.4 Equipment

This expedition required lots of specialised equipment but also had a maximum space confinement of a backpack. As we aimed for a maximum of 17kg pack weight per person (including 3 litres of water) space and weight was essential. Equipment included: mountaineering boots, crampons, ice axe, waterproofs, harness, rope, carabiners, micro traction, gloves, sun glasses, hard hat and warm/spare clothes.

5.5 Permits

No permits were required for this trip.

5.6 Insurance

We all bought Austrian Alpine Club insurance which covers medical and rescue costs. This insurance also results in discounts in the Cabanes and is highly recommended.

5.7 Food and Accommodation

As we expected to be staying at Cabanes for most of the route, we only needed to provide lunches for these days as the Cabanes are half-board (dinner and breakfast provided). In order to save on weight we decided to all go for dehydrated meals for our lunches. These required boiling water so 2 jetboils were taken between the team.

5.8 Communication

Communications became a large part of our trip, especially with the helicopter rescue. Thank goodness we had phones with signal when we were rescued. In future, conditions and environment should be taken into consideration regarding whether a satellite phone may be necessary.

5.9 Medical Arrangements

Prior to embarking on our trip, we made sure that we had up to date first aid knowledge. We are all first aid trained and Flo is a doctor. We all each carried a personal first aid kit.

6 Environmental and Social Impact Assessment

Climbing a glacier is a real privilege and ironically flying to Switzerland in all likelihood contributed to its demise. Our environmental commitment to looking after the landscape as we moved through it was of upmost important to us and we hope that all we left was the sensation of a smile.

7 Risk Assessment

7.1 Route Related Hazards

Hazard	Cause	Control Measures	Severity	Probability	Risk
Crevasse fall	Snow bridge collapse, poor navigation, slip while crossing	All team members will be trained in crevasse rescue and carry the equipment necessary to haul someone out. The team will travel in a rope team of four, which makes it significantly easier to arrest and recover a crevasse fall. Furthermore, local hut advice will be followed regarding crevasse conditions.	2	3	6
Serac collapse	Travelling under a serac in hot conditions or after recent rainfall	We will seek to take paths that avoid exposure to seracs where possible. If necessary to do so, we will not stop in the danger zones.	3	2	6
Wet avalanche	Rain or high temperatures	The team will be trained in avalanche awareness and will avoid travelling in avalanche- prone areas where possible, especially during the hotter hours of the day. This may require starting routes very early.	1	4	4

Large rock fall	The permafrost that holds together alpine mountains melting	The team will consult local guides and consider recent rockfalls in an area to minimize exposure to hazardous terrain. If guides stop taking clients on the glaciers, the team will not continue. The team will start the days very early, with an aim to minimize the time spent walking in the afternoon heat.	2	3	6

7.2 Weather Related Hazards

Hazard	Cause	Control Measures	Severity	Probability	Risk
Hypothermia /frostbite	Prolonged exposure to cold without proper clothing	All team members will take suitably warm and waterproof clothing, as detailed in the Equipment section. Members will also be trained in outdoor first aid, so will be able to recognise the symptoms of hypothermia. Short-term weather forecasts will be consulted. Immediate warming/descent and call for rescue will occur.	1	3	3
Hyperthermia	Prolonged exposure to heat, especially while dehydrated	All team members will carry appropriate quantities of water when climbing. Members will be trained in outdoor first aid, so will be able to recognise the symptoms of hyperthermia.	2	2	4

Sunburn	Exposure to the high UV alpine environment	All team members will carry and apply SP50+ sunblock. Nose protectors and long- sleeved UV resistant clothing will also be used.	2	1	2
Snow blindness	Exposure to the high UV alpine environment	All team members will bring Category 4 sunglasses.	1	3	3

7.3 Health Hazards

Hazard	Cause	Control Measures	Severity	Probability	Risk
Dehydration	Not drinking enough water	All team members will carry appropriate quantities of water when climbing. This is detailed further in the Food section.	2	3	4
Starvation	Not eating enough food	All team members will carry appropriate quantities of high-calorie food when climbing. First aid kits will contain chocolate or sweets, to treat the condition.	2	1	2
Infectious disease	Multiple	The team will carry means of wound care. High quality professional medical help is available in the Alps and will be sought if necessary	1	3	3
Acute Mountain Sickness - mild	Altitude	Appropriate acclimatisation. Stop ascending/Descent. Paracetamol + rest overnight.	2	2	4
Acute Mountain Sickness - severe	Altitude	Appropriate acclimatisation and vigilance for symptoms. Immediate descent to lowest altitude possible in shortest safe timeframe possible.	1	4	4

8 Emergency Plan

8.1 Useful Numbers

- European Emergency Services: 112
- NHS overseas telephone number: +44 191 218 1999

8.2 Procedure in an Accident

1. Assess the situation: Quickly assess the situation to determine the nature and severity of the emergency. If someone is unconscious or not breathing, call for emergency medical assistance immediately.
2. Call for help: If possible, use a mobile phone or other communication device to call for emergency medical assistance or the local authorities. Provide your location and the nature of the emergency.
3. Provide first aid: Provide appropriate first aid until medical assistance arrives. Focus on stabilizing the injured person and preventing further harm.
4. Secure the area: If necessary, secure the area to prevent further accidents or injury. This may involve blocking traffic, putting up warning signs, or moving the injured person to a safe location.
5. Wait for medical assistance: Wait for medical assistance to arrive. If possible, provide the responding medical personnel with information on the nature of the emergency and the steps taken thus far.
6. Document the incident: After the emergency has been resolved, document the incident, including the steps taken, any relevant information about the injured person, and any other details that may be important for future reference.

In case of a crisis such as a heavily injured teammate, we will contact mountain rescue via the European emergency number – 112. With Austrian Alpine Club membership, we have insurance for helicopter rescue.

9 Conclusion and Recommendations for future trips

We learnt a lot from this trip (as you may have guessed). From the things that we did well to the things that we did not so well. So here are our recommendations for future alpine hiking planners.

Prior to starting our journey we did some fitness and skills training. However, we all had very busy early summers, finishing exam season etc. If we were perfectly honest we would have to say that we did not all have the required skill level and were not all equally confident with the conditions. Our first bit of advice would be to all be confident in your skills by doing as many snow skill days as possible.

Check the local weather often and plan to conditions. We were caught unawares of the very wet few weeks that the region had had and so were not prepared for paths to be impassable. The weather can change rapidly in the alps. There are many apps and websites for checking weather forecasts and snow depths.

Make sure all the team knows the emergency plan. This has to be taken seriously as each of you may need to make important decisions.

Overall we have to say that thankfully no one was seriously hurt and that although one member had to return home we still had a great time. Lots of amazing walks were done and lots learnt.

10 Acknowledgements

Without the help of many friends, kind advisors and generous lenders of equipment this trip would never have happened. We would especially like to thank the Imperial Exploration Board, the Old Centralians' Trust, the Royal School of Mines Association Trust and Royal College of Sciences Trust for providing funding for this trip.

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11 Contact Details

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