

Ferry to Ferry- Atlantic Coast Cycle

September 2021

https://www.instagram.com/cycle_to_surf/



Foreword

In 2021 international travel was extremely uncertain due to the Covid-19 pandemic. We were not even sure of the exact requirements necessary to travel to France, Spain, and back again until days before our departure. Despite these uncertainties our team was motivated to challenge ourselves with an ambitious and rewarding journey that would stand as an example of a way to find adventure in difficult times. The idea for the trip began as an idea to travel to the Imperial Surf Club summer tour without using air travel. Set dates of the ferries to Brittany and the start of the tour meant we needed to cover 800km in as many days, with not all the team having ridden >100km in a day more than a couple of times. The shorter days afforded us at the end of summer meant we woke before first light and were often cooking in the dark in order to fit as many hours on the bike as possible to keep the pace manageable.

We typically spent 10 around hours cycling from start to finish each day, including breaks. After 12 days on the bikes, 1300km covered with 8000m of elevation gain (30kg bikes and gradients of 30% was an experience), we can all say we found the experience a test of physical fitness and patient teamwork.

We documented the trip as we went with an instagram account we all had access to (https://www.instagram.com/cycle_to_surf/). This proved to be a fantastic way to provide updates to friends and family back home, and now serves as an archive of our trip.

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Introduction

Aims of the expedition

The main aims of this exploration were to:

- Seek adventure in a world where global travel was heavily restricted by the pandemic
- Explore new cultures whilst minimising environmental impact
- Stretch the limits of individuals to increase ability for greater exploration in the future
- Cycle 1000+ kilometres self-supported from London to Spain
- Motivate other Imperial students to take part in something challenging and persevering through that challenge in order to achieve a positive outcome

A two week exploration was proposed to ensure that it is possible given the changing scenery of the world under COVID restrictions.

The team is incredibly thankful to the Exploration Board for considering and approving the expedition and are hugely grateful for all the financial support, equipment, and advice they offered.

The Team

The team consisted of Imperial students and graduates:

- **Rowan Hedgecock, 27** (Imperial Undergraduate 2013 – 2018, Imperial PhD 2018 – Present)
- **Ross Unwin, 25** (Imperial Undergraduate 2014 – 2020, Sabbatical officer 2020 – 2021)
- **Kieron Creagh, 30** (Imperial Undergraduate 2009-2013, Sabbatical officer 2013-14) Imperial Staff member 2014 - Present)
- **Ben Warnick, 27** (Imperial Undergraduate 2012-2016)

Ross Unwin: Expedition Leader

Cycling experience: Keen cyclist, regular long weekend cycles. Daily commute by bike in London traffic. Undergone training for two olympic triathlons that took place this summer, and extended endurance with multiple long rides in successive days. This will be my first cycle tour of this length.

Exploration experience: Outdoor enthusiast. Countless nights under canvas as part of the University of London Officer Training Corps, Gold DofE (and practices), regular hiking expeditions (weekends and weeks), and Scout young leader. First aid training through the British Army, equivalent to Level 3 Outdoor First Aid Qualification.

Rowan Hedgecock: Deputy Leader

This will be my third cycle tour, but by far my most ambitious. I increased my cycling volume three years ago to train for triathlons, completing 7 events including a half iron distance, so I feel well prepared for the journey. I have previous expedition experience in multi-day hiking in the UK and NZ, and have done two weeklong cycle tours of Germany and the Netherlands.

Kieron Creagh: Treasurer and Med. Officer

Keen cyclist completing a Triathlon in July, commuting daily by bike and regular weekly training rides. Completed multiple 100k+ rides in the month before the trip.

Other sporting interests include skiing, running (completed a marathon in April), hockey, tennis and golf. Undergraduate degree was in Geology which provided significant

experience outside as well as first aid training. Additionally a volunteer for the Scouts, previously as a leader and now an adult trainer.

Ben Warnick: Equipment Officer

Keen cyclist training with the London Dynamos cycling team, recently completed an Olympic distance triathlon and velodrome race training. Has previously completed 200km+ training rides, the Etape du Tour and multi day rides to test out gear.

Undergraduate degree was also in Geology. Additionally has organised numerous challenging sailing expeditions (including two in the arctic) and several motorbike touring adventures in rural Cambodia.

Route summary

The adventure started in London. Due to time constraints we ultimately took a train to Portsmouth ahead of the ferry across the Channel to Saint Malo in northwestern France. We then cycled south through Brittany, passing through Nantes and then along the coast. Following our first rest stop in Île de Ré we then head straight to Moliets. Beyond Moliets, we cycled into Spain and along Spain's northern coast, through Bilbao, where one member of the team left us to fly home, and the rest of us continued to Santander and took a Ferry back to the UK.

Table Summary of Route

<i>Day</i>	<i>Destination</i>	<i>Distance (km)</i>	<i>Total Ascent (m)</i>	<i>Additional Notes</i>
0	Portsmouth/ Saint-Malo	0	0	Train from Waterloo to Portsmouth Ferry to St Malo
1	Ploermel	115	862	
2	La Bernerie-en-Retz	138	798	Bridge Crossing at Saint-Nazaire
3	Talmont-Saint	131	452	
4	Les Portes-en-Re	134	339	
5	Rest	0	0	
6	Rest	0	0	
7	Chatellaillon-Plage	62	186	
8	Hourtin	124	399	Rochfort Funicular, Royan Ferry
9	Gastes	155	794	Cap Ferret to Arcachon Ferry Mechanical detour
10	Moliets-et-Maa	72	273	
11-15	Rest and Surf in Moliets			
16	Anglet	63	273	
17	Mutriku	115	1464	Entered Spain
18	Castro-Urdiales	121	1683	
19	Santander	81	838	Ferry in Santander
20	Plymouth/ London	0	0	

Final Budget Expenditure

<i>Description</i>	<i>Rowan</i>	<i>Kieron</i>	<i>Ross</i>	<i>Ben</i>	<i>Total</i>
<i>Bike Parts</i>	£168.41	£120.00	£33.79	£120.00	£442.20
<i>Bike Accessories/ Spares</i>	£112.08	£170.00	£40.00	£40.00	£362.08
<i>Cycle Touring Equipment</i>	£162.47	£164.00	£124.99	£100.00	£551.46
<i>Cycling Clothes</i>	£53.70	£114.00	£264.00	£65.00	£496.70
<i>Camping Equipment</i>	£70.00	£40.00	£64.99	£90.00	£264.99
<i>Covid Tests</i>	£78.00	£50.40	£50.40	£50.40	£229.20
<i>Ferries/ Flights</i>	£200.34	£130.00	£200.34	£200.34	£731.02
<i>Food</i>	£192.00	£192.00	£192.00	£192.00	£768.00
<i>Internal Ferries</i>	£15.11	£15.11	£15.11	£15.11	£60.44
<i>Camping Fees</i>	£45.00	£35.00	£45.00	£45.00	£170.00
<i>Trains</i>	£60.00	£30.00	£30.00	£60.00	£180.00
<i>Insurance</i>	£47.00	£47.00	£47.00	£47.00	£47.00
Totals	£1,204.11	£1,107.51	£1,107.62	£1,024.85	£4,303.09

Packing List

Not every item was carried by each member of the team where items could be shared between us.

Bicycle Accessories	Cycling Clothes	Personal Items	Camp Clothes
<ul style="list-style-type: none"> ● Rear Rack + Panniers ● Handlebar Bag ● PVC Dry Bag ● Saddle bag for repair kit ● Water Bottles + Cages ● Bike Computer ● Front and rear lights ● Head torch ● Bungee Cords for attaching dry bag to rack ● Reflective jacket/ vest 	<ul style="list-style-type: none"> ● Helmet ● 3x Cycling Jersey ● 2x Cycling Shorts ● Cycling Gloves ● 2-4x Cycling Socks ● Cycling Shoes ● Waterproof trousers/ bib-tights ● Rain Jacket ● Gloves ● Arm + Leg Warmers ● Waterproof Shoe Covers 	<ul style="list-style-type: none"> ● Watch ● Sunglasses ● Sunscreen ● Insect Repellent ● Lip Balm ● Mobile Phone ● Portable charger 	<ul style="list-style-type: none"> ● T-shirts ● Warm midlayer ● Synthetic Swim Shorts ● Underwear/ Socks ● Baseball Cap/ sun hat ● Flip-Flops / Running Shoes
Camping Gear		Bike Tools + Spares	Additional Repair
<ul style="list-style-type: none"> ● 2x MSR Hubba Hubba 2 man tents ● 2x waterproof groundsheet ● Sleeping Bag ea. ● Sleeping Bag Liner ea. ● Camping mat ea. ● Nylon Stuff Sacks (various sizes; for clothes + gear) ● 1x Campingaz stove ● 1x Primus Omnifuel stove ● Fuel; 1x Omnifuel 1x Campingaz ● Mil-tec Aluminium cookset ● Utensils: Spork / Spoon+Fork+Knife set (lexan / titanium) ● Insulated Travel Mug (hot coffee in camp/town or to take on bike) ● Collapsible water container ● Small backpack + musettes for shopping and day use 		<ul style="list-style-type: none"> ● Air Pump ● Patch Kit + Tire Levers ● Spare Tubes 2ea. ● Chain Lube ● Brake Pads 2 pair ea. ● Spare Tire ● Brake/Shift Cable ● Nuts + Bolts ● Replacement Cleats ● Bicycle Multi-Tool ● Chain Tool + Spare Link(s) 	<ul style="list-style-type: none"> ● Pocket Knife ● Duct Tape & Electrical Tape ● Plastic Zip Ties ● Batteries ● Plastic Bags ● Air Mattress ● Patch Kit ● Sewing Kit ● scissors ● Safety Pins ● Paracord

Toiletries	First-Aid
<ul style="list-style-type: none"> ● Travel Towel ● Washcloth ● Soap / Shampoo ● Toothbrush + Toothpaste ● Toilet Paper ● Hand Sanitizer ● Nail Clippers ● Tweezers ● Disposable Razor 	<ul style="list-style-type: none"> ● Band-Aids (assorted sizes & shapes) ● First-Aid Ointment (i.e. Neosporin) ● Adhesive First-Aid Tape ● Alcohol Wipes ● Cotton Swabs ● Compress / Gause Pads (med / large size) ● Ibuprophen (i.e. Advil) / Aspirin (i.e. Bayer) ● Anti-Chafing Balm (i.e. Vaseline —for saddle sores) ● Anti-Itch Cream (i.e. Hydrocortisone) ● Muscle Relief Cream (i.e. Icy-Hot, Sports Cream) ● Anti-Diarrheal Tabs (i.e. Imodium AD) ● Sports Injury Cloth Bandage ● Neoprene Knee / Ankle Wrap ● Lighter (butane / dispoisible) + Storm Matches ● Compass (on handlebar / watch / hand) ● Whistle ● Emergency Space (mylar) Blanket

Diary

Stage 0, London to Portsmouth

Rowan and Kieron left London by train in the afternoon, arriving in Portsmouth to meet Ross. We had a final pre-trip meal of fish and chips to eat in the queue to get on the ferry.

The process of catching the ferry with bikes was easy and straightforward, we cycled up through the car entrance way and were directed to the front of the queues of vehicles. The weather was fine but we have heard from others there that this can be a miserable experience if it's pouring with rain as you're left very exposed before embarking.

Once on the ferry we were the only people we could see without a booked cabin so had the run of the seated areas to sleep in. We made use of the public showers and slept in our sleeping bags on our roll mats between the chairs.

Stage 1, Saint Malo to Ile de Re

Day 1, Saint Malo to Ploermel

Breakfast at the ferry dining hall, arriving in Saint Malo around 0830, disembarking was easy enough but a short delay while covid passes were checked at the border.

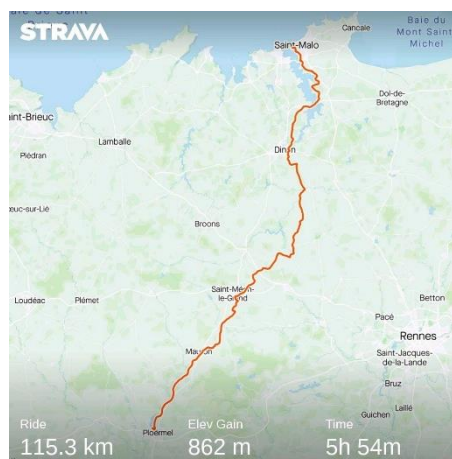
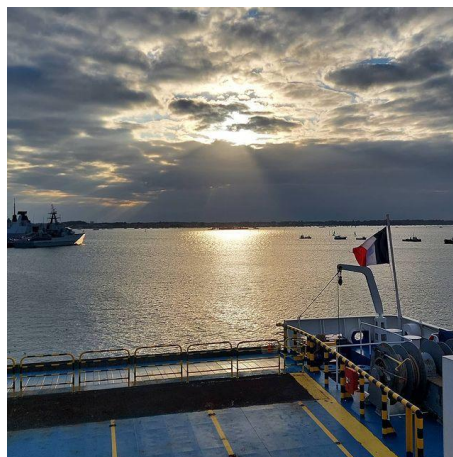
The cycle out through Brittany was then stunning, we had a couple of shake down bike problems, needing minor readjustments of brakes and pannier racks but nothing major.

We had the first of what would become a daily ritual of an elevesens boulangerie stop in the beautiful medieval town of Binan, followed by a supermarket lunch of baguette, meats, cheese and salad around 1400.

We kept the pace easy, we all had heart rate monitors and checked frequently to make sure we weren't accidentally being pushed too hard. Making sure not to put in too much effort early on and maintain energy for the days to come.

The final stretch of the day was along an old railway bike path, very straight and away from roads for about 15km

As we had not planned precisely where to camp each day we waited to see how we managed for distance before googling potential campsites nearby, finally opting to wild camp at the edge of Lac au Duc at a picnic area with toilets in a nearby carpark.



Day 2, Ploermel to La Bernerie-en-Retz

Back on the straight bike path for a couple dozen kilometres, first hints of rain meant wet weather gear got its first tests but by lunch in Nazaire it was hot and sunny.

The major challenge of the day was navigating the river crossing, only possible by motorway bridge or cycling round Nantes. There is a free bus that runs throughout the summer that takes bicycles across, or taxis are willing to take bikes as well. There is a narrow painted cycle lane at the edge of the motorway which we would not recommend anyone to take as you are very exposed, winds can be high, and close to traffic.

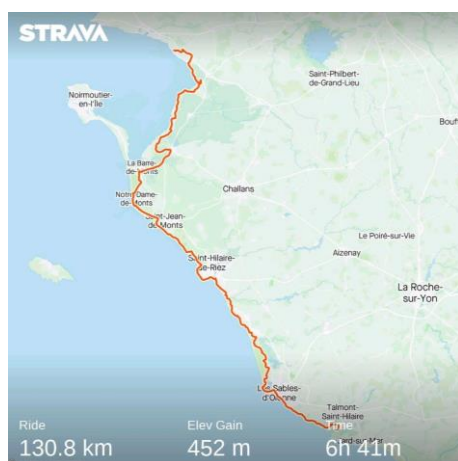
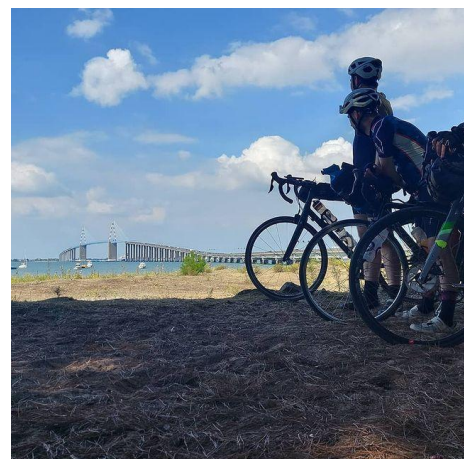
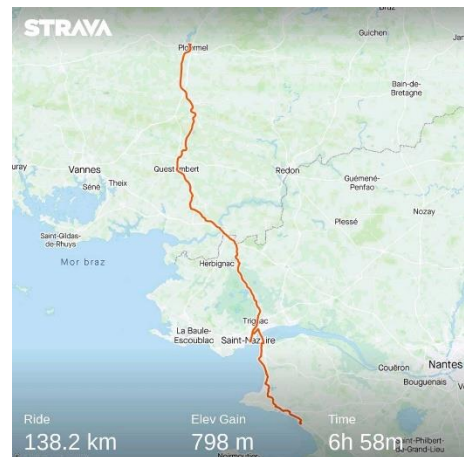
Once over the river we then joined the Eurovelo route 1, which would take us the rest of the way through France to Spain. This route followed the coast for the rest of the day, finishing at a campsite in La Bernerie-en-Retz.

Day 3, La Bernerie-en-Retz to Talmont-Saint-Hilaire

Following the EV1 down the coast led along some absolutely stunning scenery in the early morning through wide open marshes and windfarms. Then onto gravel tracks alongside main roads, which was slower progress but nice to be separated from traffic.

It was very hot and hard going through the sun, so we made sure we stayed hydrated, reaching the gravel paths under the tree canopy was a welcome relief.

The EV1 continued to Les Sables-d'Olonne where we looked for a campsite to end the day at. Then cycled through the late afternoon with great views across the ocean and then across the dunes to a campsite between Le Port and La Guittiere.

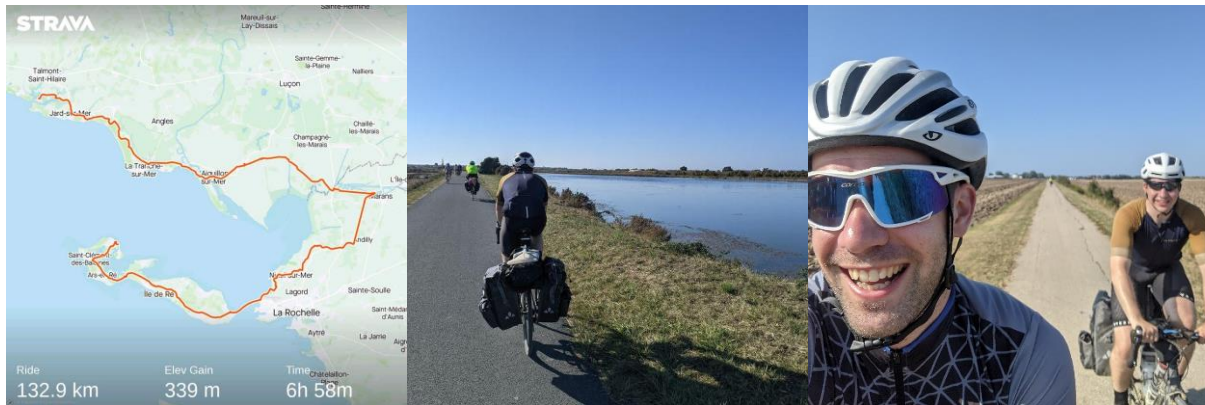


Day 4, Talmont-Saint-Hilaire to Les Portes-en-Re

Back on cycle paths through forests and around canals. First major issue of the trip when Kieron's legs began to fatigue around our daily patisserie break. We continued at a reduced pace along the flats but inclines were a struggle, luckily the rest of the day was flat along canals to La Rochelle. Ross had the first, and only puncture of the trip just before we reached the only major hill of the day, over the

bridge to Ile de Re which was otherwise very level. It was a beautiful end to the day riding through the salt farms as Rowan put in a hard shift on the front in the wind up through the island and to a well-earned two day rest.

Route issues and leg issues making the day long and slow on mostly unsurfaced roads again.



Rest Days 5-6.

Stayed 2 days in Les Portes-en-Re recovering from a challenging first leg. Ben arrived on day 6 having cycled 295km on day 5 to catch up from being delayed starting the trip. We learned from our tensions and issues in the first leg surrounding how far we were cycling each day, and where we were going to sleep, by taking the day off to plan our route more thoroughly, checking GPS traces were exactly on bike paths we wanted and ending each stage of the route at a planned campsite.

Stage 2, Ile de Re to Moliets

Day 7, Les Portes-en-Re to Chatellaillon-Plage

Beginning our second leg to arrive in Moliets, we left on Wednesday afternoon to get off the island and underway. Same scenery as arriving. La Rochelle was lovely, we stopped at a bike shop to fit a new 25c tire to Ross' bike after rubbing issues with the 28c. Finishing the day along the EV1 at a pirate themed campsite in Chatellaillon Plage.



Day 8, Chatelailon-Plage to Hourtin

Our first full day of riding since the rest was generally without issue, navigated to Rochfort for elevenses where we bought enough pastries to feed a small army and ate them by the funicular across the river, an interesting piece of engineering to allow large ships up the river. We also stocked up on baguettes to eat on the ferry crossing at Royan. After the ferry we started into pine forests that we would be cycling through until we reached Biarritz. Rain came in the afternoon as well, but the EV route was always on well surfaced bike paths away from roads. Rowan had issues with tyre clearance, pine needles getting stuck between frame and tyre when wet. To top our day of alternative transport we also managed to catch a local steam train.

Day 9, Hourtin to Gastes

The longest day of the trip, with 155km covered, was also the most eventful. After a late start we continued on the EV1, the ground still being wet from the rain the previous day meant Rowans' bike was biking up a lot of pine needles, making cycling impossible without stopping to clear the blockage every few minutes. To avoid this Rowan and Ross separated from the others to take the road to Cap Ferret and meet up again for the ferry to Arcachon. Luckily, Rowan and Ross arrived in time to buy tickets for the next ferry, Kieron and Ben arriving at the last possible minute. The ferry required the bikes to be placed on the roof of the boat so all bags and panniers had to be removed, and a steep slope out of the jetty at the other end was impossible to push bikes up in SPD-SL cleats.

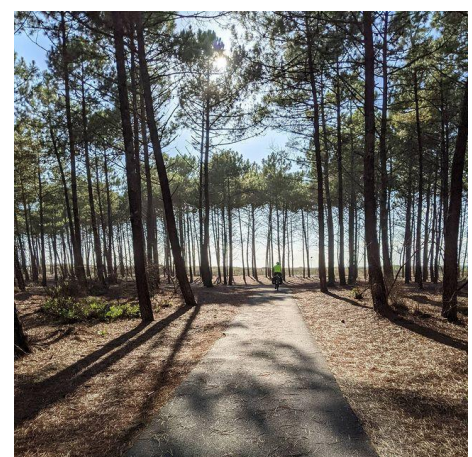
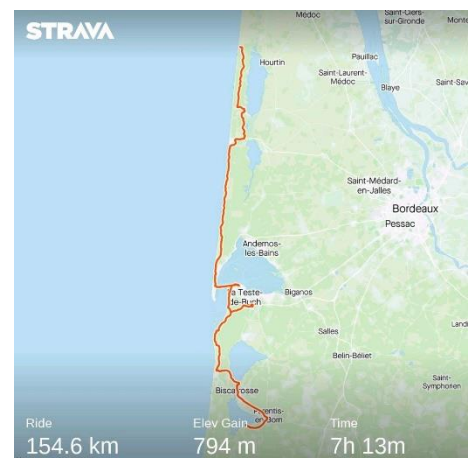
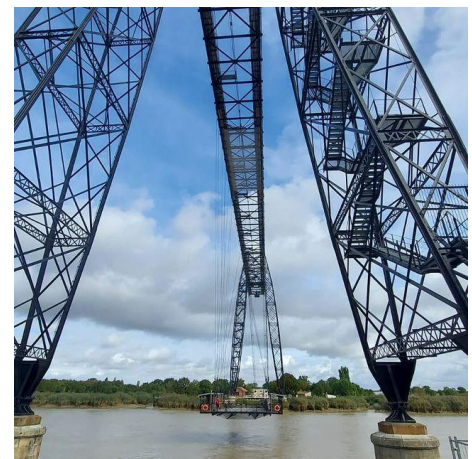
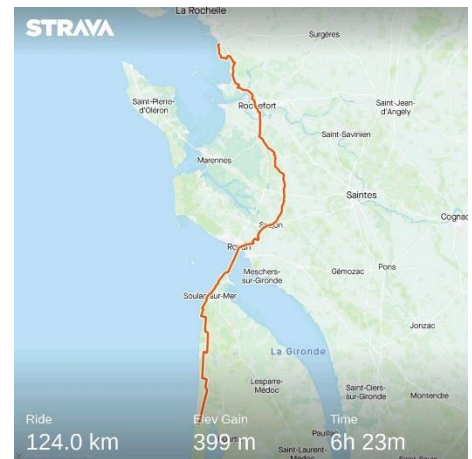
We made our routine supermarket stop to buy lunch, and food for dinner before continuing south.

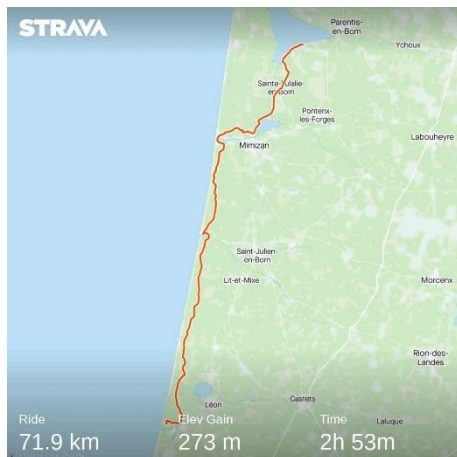
10km out of Arcachon Ross was caught in some of the loose sand at the edge of the cycle path and crashed into a metal road barrier separating the cycle path from traffic. Luckily no injury, but snapped the front brake caliper. This meant we took a 15km detour to the nearest town to find a bike shop, finding an appropriate caliper at a very helpful and kind shop who let us use their workstand.

By the time we started again it was already getting late and we still had 50km to go to the planned campsite for that day. The evening sun along the coast was, however, gorgeous.

We reached a large lake north of Biscarosse at around 125km and Rowan had to stop to solve some problems on the Imperial Surf Society Summer Tour, and the other three continued to set up camp before losing light at Gastes, another 30km away.

Rowan caught up just after dark and we had a late meal and early night by the lake.





Day 10, Gastes to Moliets

Back through pine forests but thankfully the ground was dry enough that Rowan's tyres didn't clog with needles. The morning into Moliets was then without incident, found a lovely little surfing town to collect our morning pastry and took it all in at a picturesque spot by the river. We arrived in Moliets around midday for rotisserie chicken on the beach and in time for Rowan to start his duties running the Surf Tour.

Rest Days 11-15

Five days then spent with the expedition on hold while Rowan ran the IC Surf Summer tour.

Stage 3, Moliets to Santander

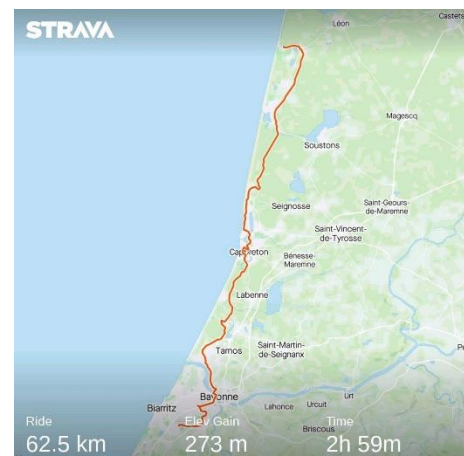
Day 16, Moliets to Anglet

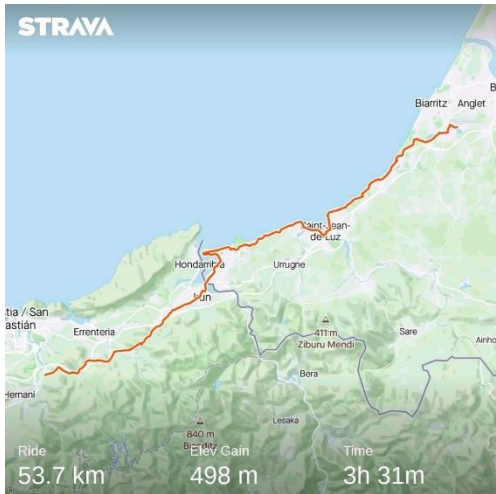
Left Moliets on Friday to get a head start on the inevitable pain in the mountains to come. Still following the EV1 all the way to Anglet, camping right next to Biarritz airport. We did have some trouble finding Campingaz to refuel the stoves but managed in the end, also getting replacement bottle cages for Bens' snapped ones.

Day 17, Anglet to Mutriku.

A long and variable day then from Anglet into Spain. Very slow progress in the morning due to pouring rain and apprehension before the mountains. The weather did clear up somewhat by the time we reached the border but with the ground still wet it meant difficult conditions to cycle up the steep gradients we were faced with.

Coming down a road we had our second and final crash of the trip, Rowan leaving the road to allow a van to pass and slipping on guttering. Again no injury other than road rash and some torn bar tape but a warning to take care in the wet.

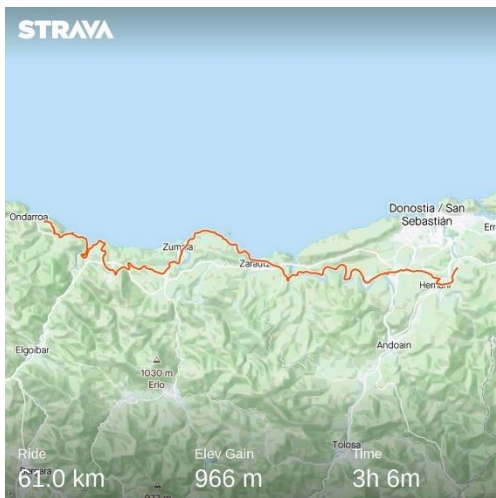




We had lunch in Astigarraga and reassessed our route, now unsure if the route plotted with Komoot would actually be passable due to some unexpected single track earlier in the day.

Deciding to play it safe, we diverted towards the coast before the mountains started in earnest. Finishing the day along coastal highways with narrow cycle paths, but the drivers were considerate, and traffic was not busy. The scenery along the coast making the diversion well worthwhile.

Some lovely long climbs up around the hills still and finished the day at a very friendly campsite with a small bar that served us some sandwiches for dinner.



Day 18, Mutriku to Castro-Urdiales

Up and moving as early as possible as this would be our most challenging day, with around 120km and 1700m climbing. We soon learned we'd make a grave error in not stocking up on breakfast and lunch food the day before, as nearly all shops were closed on Sunday.

Thankfully we found a petrol station that had bread and snacks to keep us going through some long but beautiful climbs before descending down into Bilbao for lunch. The way into Bilbao took us along quiet backstreets, many of which were very steep. We saw a lot of local cyclists out for group rides who took the main highway, N-634, straight into the city. Which was actually not terrible to cycle on despite it being a multi-lane road.

After a farewell lunch stop in Bilbao, Kieron remained to fly home for work the following day.

The rest of the group continued after lunch out of Bilbao toward the coast with a stinking headwind, and gentle gradient up for what felt like hours.

Fished the day along coastal paths with staggering views and one cycle-only tunnel into Castro.

I think if the campsite that night was 1m further or higher we might not have made it. Absolutely exhausted but did find an open supermarket and fully stocked up for dinner, breakfast, and snacks for the final day.

Day 19, Castro-Urdiales to Santander

Left the camp nice and early for once, allowing plenty of time to reach the ferry in the afternoon, still 80km and 800m ascent away.

Day started with beautiful climbs into the sun rise and was then rolling through farmland and small towns.

By the time we reached Santander the weather had turned and we faced pouring rain on the final stretch into the city, taking cover for lunch at a restaurant by the ferry port.

Finally stocked up on souvenirs and snacks and spent the rest of the wait until the ferry dodging in and out of the rain queuing before embarking.

We were very thankful to have booked a cabin for the 20hr journey home, allowing us to have proper beds, a shower, and somewhere to leave our belongings.

Day 20 Plymouth

Ferry arrived early afternoon on Tuesday and we parted ways, Ross heading on the train west, Ben and I to London.



Conclusions

Bikes

Kieron and Ben had bikes designed to take a pannier rack, and with enough clearance off road. These both performed well without issue.

Adapting a road bike with less generous clearance for touring, while possible and worked well in this case, was not without issues. Clearance was a problem with 28c tyres, which are preferable on looser terrain, and without proper bolted mounts for a rack we had issues with panniers mounting correctly. I would say that the best bike to use for a tour is the one you already own, but if I was to do a longer tour I would look into a more robust set up.

Rowan

I was very grateful that I'd changed my cassette to give myself a lower gear, my lowest gear being 34/34 down from 34/28 previously. Despite needing to change my rear derailleur as well, this was a godsend in the hills with such heavy bikes.

Fitness wise I fared OK, I would have to frequently tell the others to slow down as I had most experience with endurance events. I noticed I was better able to pace myself than the others, who would typically go off too fast in the morning and slow in the afternoons. My biggest issue was chafing, which was not something I had



problems with before when cycling. Chamois cream was not sufficient and I had pjuractive 2SKIN anti chafing gel sent out which worked wonders in combination with cicatryl cream from french pharmacies. Minor road rash in Spain would have been more straightforward to treat if we'd brought hydrocolloid wound dressings.

My favourite piece of gear I took was my thermal sleeping bag liner, allowing me to take my thin summer bag to save weight and space. It was more than enough to keep warm in combination.

If I were to plan something of a similar nature again I would make sure every team member was more involved at the planning stages of the expedition so things like distance, timings, rest days, etc.. would be ironed out in advance. Although the nature of our trip was flexible enough to accommodate mid-trip adjustment.

Ben

No major problems however would take panniers instead of just a rack top bag. This meant too much equipment was attached to the rack by bungees which occasionally came loose over cobbled sections. This would also have increased storage and would have given me space for an off the bike casual outfit. I would also have taken more water as even with 4L on the bike I was getting through it quite quickly in the heat.

Nice to have would have been areo bar extensions to take pressure off the wrists and offer more positions.

If we were planning a similar expedition again it would be nicer to go closer to midsummer as we were losing the light in the final week and cooking/setting up camp in the dark.

Kieron

I was lucky to have a gravel bike with all the touring mod cons so I was very happy with my bike setup, especially the wide rear pannier rack, 700×32C tyres and disc brakes. If I was to make a change for longer journeys it would be to add additional handlebar positions.

I think we were ambitious with the distances we wanted to cover each day and we were lucky that we had no major incidents that disrupted our plans (injuries, equipment failure etc). My view is that it would have been nice to have planned more time for non-cycling exploring and activities in the areas we passed through.

There were also many things we were able to take for granted because our route took us through villages and towns that we would otherwise have had to have been much more prepared for - e.g. access to food and water.

Despite being one of the hardest and most gruelling days I found the long ride from France into Spain and through the foothills the most enjoyable, I think this may also have been because at the start of the trip I couldn't have imagined being able to complete such a ride. However it involved a lot of cycling on roads which is not for everyone.

Ross

I consider the trip a success for myself and the team. When I cycle my next tour I will set up a proper touring bike, or at least adjust the rack mounts, as converting a road bike for touring has similar issues to Rowan. My eyelets were intended for mudguards and couldn't get a horizontal mount for the panniers. This led to several issues with fixings during the trip, solved with bungees but was a persistent pain.



Appendix

Planning Documents

Accommodation

The preferred accommodation option throughout will be camping. The route has plenty of campsites along it. It is likely that wild camping may be possible in France, but due to the pandemic, there are reports that landowners are not as open to wild camping as per pre-pandemic, so campsites will be sought where possible. If camping is not possible, the cheapest alternative will be found, e.g. hostels - it is hoped this isn't needed.

Prices of campsites fluctuate throughout the route, But are roughly between 6-10 euros per person per night. We will budget for £7 per person per night.

Food and Drink

The team will be self-catered throughout. The route frequently goes through populated areas, so small shops and supermarkets will never be more than a day away. From researching previous Imperial bikepacking expedition reports through Europe, and from online research, a budget of £7 per person per day seems reasonable.

A day's worth of meals will probably look like:

- Breakfast - Porridge and fruit
- Lunch - Sandwich and flapjack
- Dinner - Pasta/rice, vegetables, and sauce
- Snacks - Chocolate bars and fruit

Water will also be important throughout the route. Each team member will carry a minimum of 3 litres of water. In France there are many public water taps (cemeteries also always have a source of water). Because we will be staying in campsites, we will also be able to refill for cooking in the evenings, and before departure in the mornings. We will carry an extra water bladder for evenings, as well as water purification tablets (combined with boiling the water) this will make wild camping easier as we will be able to drink stream water in unpopulated areas.

Navigation & Power

Cycle computers and mobile phones will be used for navigation with GPX files downloaded in advance of departure. These will need to be charged. We would kindly request that we could please borrow the exploration board's anker solar power charger, which we will combine with portable power banks. In addition, when camping or stopped in populated areas we hope to find available sockets to use.

Large scale maps will be carried by the team if technology fails.

Weather

This trip will mostly be in France in the month of September. Expected temperatures and rainfall are below:

- Min Temperature 14 °C
- Max Temperature 23 °C
- Chance of Rain 33%

If the midday temperatures get too high, we will start in the early morning and rest during peak sunshine hours in the middle of the day. We are not planning to cycle at night.

The main consideration with regard to the weather is cycling gear. Each rider will typically wear:

- Short sleeve jersey
- Bib cycling shorts
- Lots of suncream

For colder or wetter weather, each rider will also carry:

- Leg warmers
- Arm warmers
- Warm layers
- Waterproofs

For camping, we have chosen two season, synthetic sleeping bags, as opposed to down ones, because they perform better when wet.

Hygiene & first aid

Good personal hygiene is incredibly important in warm weather when cycling. To prevent any chafing, each team member will have two pairs of bib shorts and wash one daily (allowing one to dry out whilst cycling the next day).

We will wash in showers at campgrounds, streams/sea when wild camping, and baby wipes on occasion. We will use insect repellent to avoid insect bites.

We will carry a fully stocked first aid kit, and will be able to stop in towns/villages to replenish any used items such as blister plasters and vaseline.

For anything greater than a minor injury, please refer to the Emergency Plan section.

Bike Set-up

The majority of team members will be using their current aluminium road bikes. 2 team members will be using gravel bikes.

There will be a variety of set-ups depending on rider's preference, either; a rear pannier rack with two pannier bags; or frame, handlebar, and saddle bag set-up. We will also carry basic repair and maintenance tools (multitool, chain breaker, puncture repair kit, lube, spare inners, pump etc.). Any major repairs will require us to get to a nearby town to repair the bikes. A full breakdown of gear is provided in the kit section.

Communication

We will be taking mobile phones with us. France has good network coverage, and most of our UK phone providers allow roaming in France and Spain at no extra cost. This means that we can get weather updates, maps, and contact people throughout the trip if needed.

Ferries

The Ferry from Portsmouth to Saint Malo has been booked for the evening of 1st September. Ample time has been planned to allow for any punctures enroute, and to eat dinner before setting sail.

The return journey from Santander has also been pre-booked. If it looks unlikely that we will not make it due to our ambitious route planning, there are trains that run frequently between Saint Sebastian and Bilbao, and between Bilbao and Santander. This means that we will be able to arrive 1 or 2 days earlier than if we cycled if required.

Sustainability

The team will be cycling the entire journey when on land. Where sea/river crossings are required, the team will use ferries.

The BEIS has also put a figure on ferry transport - 18g of CO₂e per passenger kilometre for a foot passenger. (<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019>)

It is estimated that there will be a 340km journey on the outward journey, and 842km for the return journey. For 4 people, this works out as 85kg of CO₂e for the entire team. This is approximately 6% of what would be emitted had team members flown. It costs roughly £7.00 to offset every tonne of CO₂e. It is currently very difficult to offset such a small amount of carbon through commercially available schemes, so the team will offset more than they cause to be emitted.

Whilst cycling, the team will have a vegetarian diet and source ingredients locally where possible.

Coronavirus

France

The majority of the journey will be through France. Current FCO advice states:

“Since 20 June, there has been no curfew in place and there are no internal travel restrictions in France. Facemasks remain obligatory in all public indoor areas. From 21 July, you need to demonstrate your COVID-19 status (vaccination status, negative test or proof of recent recovery) to access events/spaces with over 50 people attending. From 9 August this will apply to a wider group of leisure activities as well as some public transport.” <https://www.gov.uk/foreign-travel-advice/france>

Spain

The final days of cycling will take us into Spain. Current FCO advice states:

“While the nationwide State of Emergency declared by the Spanish government on 25 October 2020 ended on 9 May 2021, some restrictions and curfews remain in force and may vary between regions.” <https://www.gov.uk/foreign-travel-advice/spain>

Entry Requirements into France

From 18th July 2021, fully vaccinated adults no longer need to present evidence of a negative test result before travel to France. The following two documents are needed:

a completed ‘sworn statement’ (déclaration sur l’honneur) form self-certifying they are not suffering from symptoms associated with coronavirus and have not been in contact with confirmed cases in the preceding fortnight. This can be found on the [French government’s website](#)

Proof of vaccination status

The French government recognises the following vaccines: Pfizer, Moderna, Oxford/AstraZeneca, and Johnson & Johnson (the vaccines recognised by the European Medical Agency).

All team members will be fully vaccinated with sufficient time between last dose and the date of entry. Those vaccinated in England are able to demonstrate their vaccination status by presenting the QR code from the digital NHS England vaccination certification or by using the downloadable PDF certificate. This can also be scanned into France’s “TousAntiCovid” app – available on both apple and android devices. <https://www.gov.uk/foreign-travel-advice/france/coronavirus>

France – Spain Border Crossing

This land border is open. Proof of vaccination on the NHS app is sufficient to gain entry to Spain.

Travel from Spain to the UK

For fully vaccinated adults there are no requirements from the Spanish government to leave the country.

UK nationals returning to England from an amber list country must provide evidence of a negative COVID-19 test result, taken up to 3 days before departure. Once in England, there will be no quarantine measures for fully vaccinated adults, however a COVID-19 test on or before day 2 is required (this must be booked and paid for in advance of arrival) and a passenger locator form must be completed.

Due to time commitments, two members can only take a fortnight of leave from work/PhD. The other two team members would like to continue south through Spain and into Portugal. This has not been included in this proposal as the situation with COVID is unclear in such a long timescale with COVID restrictions changing frequently. If COVID makes this impossible, all team members will return to the UK together.

Training Regime

All team members have undergone training since January for Olympic distance triathlons. This has meant a considerable amount of training to establish a good base level of fitness. In the weeks preceding departure, training will ramp up to more than 80km per day.

The team has also gone on 100km+ weekend rides.

Training Camp

In June, the team undertook a weekend long, self-supported cycle tour through the Surrey hills. Over 3 days, members of the team cycled almost 300km. This involved camping and carrying kit required for a longer adventure.

This weekend proved that we have achieved an adequate level of fitness and competence for a longer trip. It enabled us to test our kit, highlighted a few gaps where we would do well to borrow some equipment from the exploration board and buy some extra kit.

Risk Assessment

A detailed risk assessment and safety management plan is included below.

Hazard	Consequences	Control Measures	Response	Severity	Probability	Risk
Biking-related risks						

Bike crash/accident	Bike damage, personal injury	Always wear a helmet when cycling. Cycle carefully and be vigilant of all traffic and potholes. Cycle slowly in wet conditions. Cycle on cycle paths/lanes where they exist. Cycle within the laws of the country. Eg. cycle 2 abreast when legal.	Assess damage to bikes and personal injury. Priority is the person, not the bike. Repair any damage or seek a mechanic for the bike. If Personal injury, follow required protocol. Travel to the nearest train station by taxi if injury is severe, or the bike cannot be repaired locally.	3	2	6
Loss/theft of bicycle equipment, or mechanical failure of bicycle	Unable to continue. Potentially stranded in unpopulated area with limited access to amenities	Ensure the team is well versed in bike mechanics and are carrying sufficient tools and spare parts to do fundamental repairs. Never leave bicycles unlocked and unattended	Attempt to make repair, and improvise if necessary until a permanent repair can be made with external help	1	1	1
Weather						
Rain	Loss of morale, injury - falls, bike slips (grazes, bruises etc.), trench foot, hypothermia	Travelling in a fairly dry month. Check the weather forecast. Be vigilant in wet conditions - reduce speed. Avoid cycling in rain if possible. Wear rainproof clothing	Stay warm, apply more layers or change out of wet clothing as necessary. Drink and eat regularly. If necessary, stop and erect tent	1	2	2
Sun	Heat Stroke, burnt skin, blisters	Apply sunscreen and lip balm regularly. Minimise exposure to midday sun. Wear clothes that have a high UV rating	Cover all affected areas immediately. Apply burn-soothing gel and protective cream.	1	3	3

Strong Winds	Risk of falling, exhaustion	Check weather (and wind speed direction). Wear windproof clothing. Acknowledge that cycling into a head wind will take considerably longer	Strong winds are likely along the coast, but the majority of the route should be protected by dunes. Seek shelter if taken by surprise. Adjust route if necessary	2	2	4
Lightning	Struck by lightning, burns, shocks, death	Observe weather. Do not ride in a thunderstorm. Find a low point and move away from the bike if caught whilst cycling. Make yourself small	If struck by lightning, check if it is safe to touch the person. Move to a safer area away from continued danger. If no pulse or not breathing, start CPR. Dial emergency services	4	1	4
General hazards						
Theft of personal belongings	Loss of money, vital technology, equipment, clothing or other personal belongings	Items never left unattended. One person always with bikes at a minimum. At night, bring personal possessions into the tent.	Assess what is missing. Act accordingly. If vital, assess options to continue travel with replacements.	1	1	1
Health						
Major injury (eg. collision with vehicle, broken bones, loss of limbs, head collision, loss of life)	Inability for member of the team to continue the journey	Exercise caution at all times. Limit speeds on downhills. Get off and walk if needed. Route planned to minimise use of high risk/busy roads No cycling at night – good time keeping and route planning always. Helmet is always worn. If we consider any route to be too risky it	All team members will be proficient with the necessary first aid skills and will know the emergency plan	5	1	5

		will not be followed. We will always be aware of the other team members				
Minor injury	Team member unable to continue immediately or team hindered and required to go at a slower pace.	Exercise caution at all times. Limit speeds on downhills. Get off and walk if needed. Route planned to minimise use of high risk/busy roads No cycling at night – good time keeping and route planning always. Helmet is always worn. If we consider any route to be too risky it will not be followed. We will always be aware of the other team members	All team members will be proficient with the necessary first aid skills and the team will carry a fully stocked first aid kit at all times. Re-treat injuries as necessary. Lighten the load of injured team members to continue making headway.	1	2	2
Dehydration	Headaches, dizziness, stumbling	Regularly take in water. Drink at least 2 litres a day. Siesta in hotter hours of day if needed. Regular water refills on route, and each person to carry minimum of 3 litres at start of each day	Rest. Drink plenty of fluids. Carry isotonic tablets to replace vital salts	1	1	1

Hypothermia	Persistent & severe shivering, fatigue, hallucinations, skin turning blue, breathing and heart rate slow, loss of consciousness, loss of life	Check weather forecast - particular risk in temperatures below 10degC, and wind speed greater than 20mph where effective temp is 0degC. Wear multi-layered clothing. wear gloves if needed. wear warm headgear if needed. If wet, change into dry clothes.	Immediately stop and erect a tent. Strip affected person of any wet clothing and get in a tent with warm layers and sleeping bags. If necessary, share body heat. Do not warm the person too fast. Give person warm broth/soup to consume	4	1	4
Hyperthermia	Nausea, headaches, dizziness, confusion, fast & deep breathing, hot red skin - > heat exhaustion - > heat stroke (seizure, loss of life)	Protect from heat. Take frequent breaks, drink plenty of water. Wear cool clothing. Find shade if needed and stop cycling if too hot	Reduce body temperature using external cooling techniques. Move to shade, bath in cold water, evaporative cooling is accelerated by removing clothing. If severe follow emergency plan	4	1	4
Navigation	Team gets lost, or takes undesired route	Regularly check maps. Use GPS and bike computers (ensure these are always charged). Create checkpoints on route. Assess roads as directed on to them, do not follow GPS blindly	Carry paper maps and compass. triangulate if needed. retrace steps to the last known position. Ask locals for help	2	1	2

Emergency Plan

Useful Numbers:

- Emergency services in Europe: 112
- NHS Overseas Health Team: +44 191 218 1999

- Imperial College 24/7 Security: +4420 7589 1000

Action in An Emergency:

In the event of an emergency an assessment of the situation would be carried out. If deemed necessary the emergency services will be called on 112, most countries across Europe have English speaking emergency call centres. In the event of a medical emergency if medical advice is required we will contact the NHS Overseas Health Team. The insurance company will be contacted for assistance and if any claims are to be made. Imperial will be contacted once we are all safe.

Accident procedure In the event of an accident

Keep calm – remember your training.

1. Carry out immediate first aid and make any casualties comfortable whilst waiting for help. Remember: make the casualty's position easily seen.
2. Assess the situation and agree on a plan.
3. Organise assistance.
4. If emergency assistance is required, dial 112 immediately and ask for the appropriate service
5. If needed, two persons to go for help (if possible).
6. Raise alarm at nearest habitation.
7. Give the International Distress Signal: six signals at one-minute intervals.
8. Record key information to tell emergency services.
 - Date and time of the accident:
 - Location: OS Card no. Grid Reference or GPS location:
 - Approximate place name or nearest recognisable feature:
 - Name(s) of injured person(s)
 - Condition of injured person(s):
 - Responsiveness: alert/verbal/responsive to pain/unresponsive. Injuries: bleeding/fractures/burn/medical conditions etc.

Evacuation procedure

1. SEEK MEDICAL ADVICE. If medical advice is required, call UK based emergency contact. Doctor to be confirmed. Insurance medical emergency helpline as alternative
2. INFORM INSURANCE COMPANY. Call insurance company. state intention to evacuate and details on the situation. Obtain written authorisation to proceed with an agreed plan.
3. CONTACT IMPERIAL COLLEGE: Call Imperial college security and leave a message with them for Dr. Lorraine Craig on 00 20 7594 8910. Include casualty location, your location, actions being taken, and insurers advice. Instruct home contact to keep you informed of any updates
4. DEBRIEF: Post incident, once back in London, each team member will write a report. As a group, document a list of decisions that were made with approximate timings of events. Complete Imperial College incident reporting form. If required speak to UK contact to discuss. Any major incident will involve a full debriefing on return to London led by the Expedition Leader.
5. Keep calm.