

20

12

IMPERIAL COLLEGE CYCLING EXPEDITION

This report is about the journey of five Imperial College students from Paris to Dakar, raising money for the charity Action Against Hunger. It details much of the preparation and the hardships faced by the team, who hope it will encourage and be useful to anyone planning a similar trip.



Table of Contents

Introduction.....	1
The Team.....	2
Shamoon Qurashi - Leader.....	2
Christopher Charles - Treasurer and Trainer.....	3
Edward Brial - Medical and Liaison Officer and Photography.....	4
Benedict Pfender - Bicycle Maintenance and Photography.....	5
Daniel Hyde - Bicycle Maintenance and Video.....	6
European Itinerary.....	7
European Diary.....	9
Paris - Bordeaux. 5 days, 640km.....	9
Bordeaux - Pamplona. 4 days, 348km.....	9
Pamplona - Salamanca. 6 days, 550km.....	10
Salamanca - Seville. 5 days, 528km.....	10
Seville - Gibraltar. 3 days, 280km.....	11
Africa Itinerary.....	19
Africa Diary.....	22
Update from Asilah.....	22
Update from Marrakech.....	22
Update from Laayoune.....	22
Update from Dakhla.....	23
Update from Rosso.....	24
Update from Dakar.....	25
Photography.....	32
Video.....	32
Charity.....	32
Preparation.....	32
Training.....	33
Safety.....	33
Physical.....	33
Equipment.....	34
Bikes.....	34
Tyres.....	34
Racks.....	34
Clothing.....	34
Camping Equipment.....	35
Medical Equipment.....	35
Communication Equipment.....	35

Food, Water and Nutrition..... 35

 Nutrition 35

 Food 35

 Water 35

Accounts 36

 Income..... 36

 Costs 36

Bibliography..... 37

 Books:..... 37

 Websites: 37

Appendices..... 38

 Risk Assessment 38

 Safety Plan 43

 Safety Plan – Road/Heat Stroke incident response 45

 Safety Plan – Europe Inc/Evac Plan..... 48

 Safety Plan – Morocco Inc/Evac Plan 51

 Safety Plan – Western Sahara Inc/Evac Plan 55

 Safety Plan – Mauritania Inc/Evac Plan 58

 Safety Plan – Senegal Inc/Evac Plan 63

Acknowledgements..... 67



i . A day of climbing in Spain

Introduction

This report details the European leg of an expedition undertaken by five Imperial College London students cycling from Paris, France, to Dakar, Senegal, between the 16th June and 1st September 2012. Extracts of the African leg of the journey taken from the expedition website www.paristodakar.org have been included to give a more complete overview of the entire expedition. The total distance covered was more than 5500 km. The European leg of the journey, supported by the Imperial College Expedition Board, terminated in Gibraltar, Spain, a distance of about 2346 km.

On route the expedition went through France, Spain, Morocco, Western Sahara, Mauritania and Senegal. For the majority of the European leg the team travelled between towns on the Camino de Santiago, a pilgrimage network with many routes leading to Santiago de Compostela in North West Spain, taking advantage of the cheap accommodation provided by the Pellegrinos hostels. During the journey the team passed through many momentous geographical features including the Pyrenees mountains, the Atlas mountains, the Anti-Atlas mountains and ultimately the Sahara desert. Sleeping arrangements varied day by day; sometimes the team found itself sleeping in car parks while on some better days it was treated to the luxuries of a cheap Moroccan roadside hotel.

The main aim of the expedition was to cycle, carrying all the necessary gear on the bicycle, from Paris to Dakar. Peripheral aims of the expedition were:

- Document the trip with emphasis on the team, cultures and sites we encountered through photography and video.
- Raise awareness and money for the charity Action Against Hunger, who are working to stop the on-going food crisis in the Sahel region of West Africa.
- Encourage other young people to step out of their comfort zone and take part in exciting ventures.



ii. The team cycling through a tree-lined road somewhere in France.

The Team

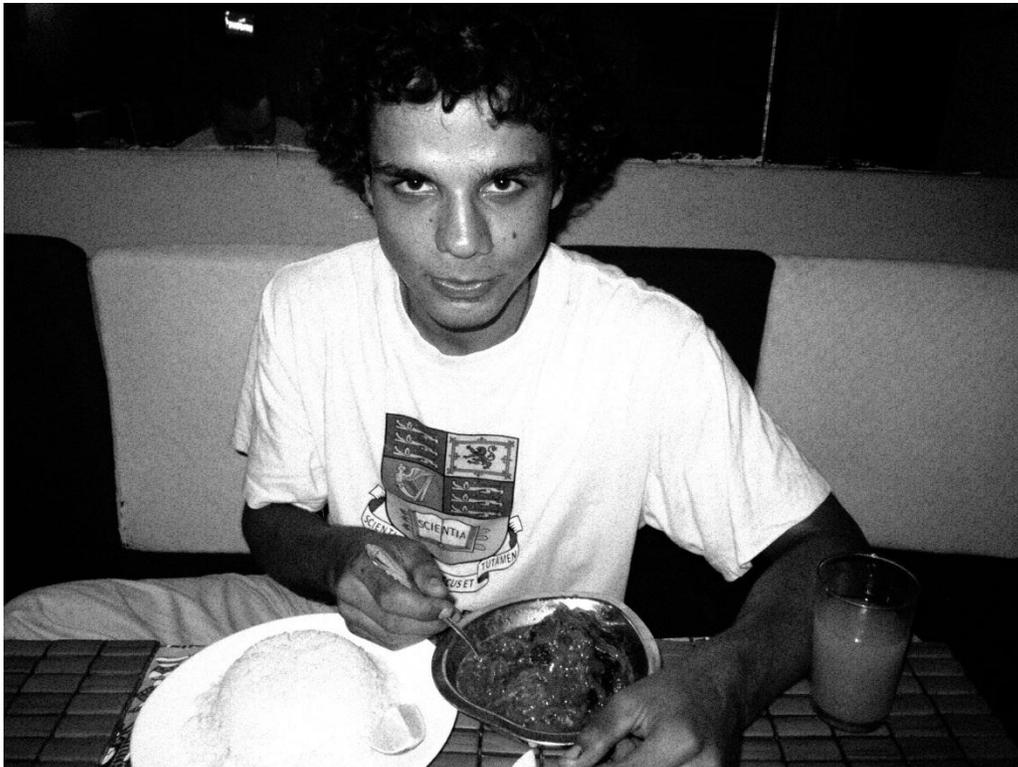
The team was made up entirely of Imperial College undergraduates: three second year Mechanical Engineers, one fourth year Mechanical Engineer and a Second year Physicist. Each member of the team was assigned a specific role for the expedition.

Shamoon Qurashi - Leader

2nd Year Mechanical Engineer, Imperial College London

Experience:

- Been riding a bike since the age of four. Experienced with different surface conditions. Bikes to university every day. Rides in Richmond park twice a week.
- Mountain biking in the Himalayas to improve stamina during the holidays.
- Member of Imperial college Boxing club, Triathlon club.
- Was the Guardian (Head Boy) of Gordonstoun School, took part in multiple expeditions in the Scottish Cairngorms.
- Took part in cross country runs and swim competitions in Scotland.
- Sailed in the Tall Ships Race from Finland to Lithuania and then brought boat back to Scotland.
- Was a member of The Corps of Canoe Lifeguards, marshalled races on Scottish loch
- Expedition First Aid trained
- Multiple hiking trips in the Himalayas and Hindu Kush in Pakistan.



iii. Shamoon tucking into a dish of Yassa Poulet, a Senegalese specialty.

Christopher Charles - Treasurer and Trainer

2nd Year Physicist, Imperial College London

Experience:

- Have completed Duke of Edinburgh Gold award which involved several expeditions lasting up to a week around Dartmoor National Park.
- Was elected Head of Army cadets at KGSCCF. Have completed numerous field training exercises, leadership courses and survival courses.
- Until shortly a member of ULOTC where I continued with leadership and survival training.
- Done several caving expeditions in the Yorkshire Dales.
- Have completed the Army Tour Skiing Course.
- Last year completed the Highlander Mountain Marathon.
- Occasionally run triathlon rep sessions on a Thursday as well as circuit training for Imperial Athletics and Cross Country of which I am a keen member.
- Between 2006-2010 I rowed with KGSBC training 8 times a week and winning a variety of medals including one silver and one bronze at National level. Was also elected Boat Club Vice Captain.
- Have been First Aid trained and have some experience with Combat First Aid Training.
- Have completed the Royal Marines Amphibious Warfare course for cadets (2006).
- Climbing with Outdoor societies.
- Completed London-Brighton cycle ride many times.
- High level French for use in France and West Africa.



iv. Chris sported a new haircut for the expedition.

Edward Brial - Medical and Liaison Officer and Photography

2nd Year Mechanical Engineer, Imperial College London

Experience:

- I have become an avid and experienced cyclist through years of cycling. I have put together my own bike on which I commute a minimum 70 miles a week through central London. Every summer I take my bike down to the South of France where I go for extended rides on a fixed gear which improves fitness at a greater rate. I now go to spin class every week and go for around 2, 3-5 mile runs a week.
- I started taking photography more seriously at GCSE but I have owned a camera since the age of 5. From 2005 - 2007 I became more conscious of my surroundings around me and the concept of composition and subject. I took lots of photos of the urban landscape and of skateboarding. Throughout my A-levels my focus turned to post production through Photoshop and physical deformation. Then during my foundation I came back to using film (Having only used it as a child). Once I started using film I became far more aware of the controls of the camera and how to manipulate my photos before processing, therefore giving my images a clearer voice.
- During my A-levels and art foundation I took a great deal of interest into video and sound art. Again by practice I came to grips with the general procedure of filming, and I also learned how to edit film using final cut. Sound art brought me into the realms of music production and I taught myself how to use Ableton Live.
- Cycled to Brighton from London.
- Expedition First Aid training
- Co-found and became Chairman of SB Imperial (Skateboard and BMX).



v. Ed in desert gear.

Benedict Pfender - Bicycle Maintenance and Photography

2nd Year Mechanical Engineer, Imperial College London

Experience:

- I initially just wanted a quick commuter bike and have since found a passion for road cycling. I now commute 40 miles a week through London and believe the rigours of cycling through the chaos of the city have honed my cycling skills. I am also training with spin classes every week and a regular longer ride on the weekends.
- I am an experienced mountain biker, having been introduced to the sport and trained by a friend who is sponsored by a team. Mountain biking has allowed me to gain experience of riding exposed to the elements. I have been on a trip to Scotland with friends where I spent a week cycling around 15 miles a day in hilly and technical terrain.
- As a result of my keen interest in bikes, and having stripped both my bikes down to the bearings to perform numerous repairs, replacements and adjustments, I am well versed and confident in my skills in maintaining and keeping a bike running, as well as being able to patch things up in an emergency.
- I have always had a keen interest in photography and have always taken photos. It is however only in the past few years that I have really aimed at developing the artistic side of my work. I have also rediscovered a love for film, especially black and white and regularly develop my photos in the university darkroom.
- I believe that my skills as a photographer will help bring home the visual element of our expedition. I aim to get more than just a snapshot; rather I try to capture the feeling of the moment. Nevertheless, I am completely proficient technically as regards cameras and equipment.



vi. Ben in windy Western Sahara.

Daniel Hyde - Bicycle Maintenance and Video

4th Year Mechanical Engineer, Imperial College London

Experience:

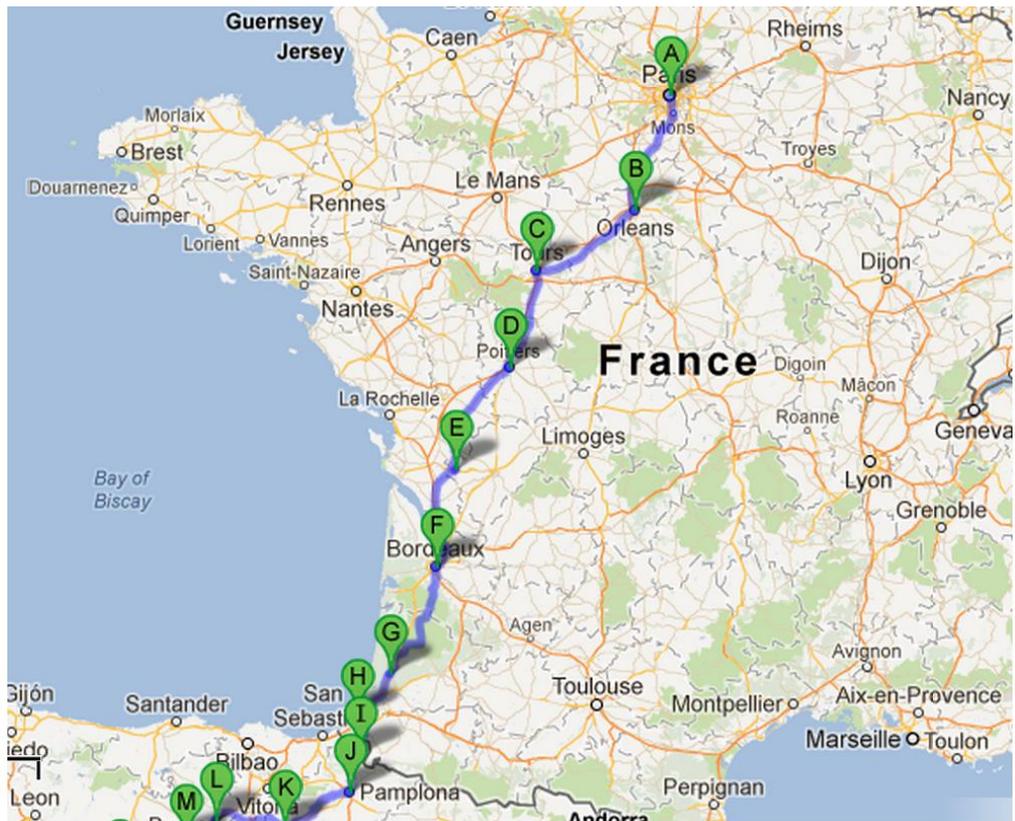
- I am a keen cyclist, enjoying road biking and BMX the most. Through these disciplines I have learnt to work on bikes and am capable of assembling bikes from scratch and fixing most problems, including being able to true and build wheels. BMX has also introduced me to filming and photography. I regularly film and edit BMX and skateboarding edits (short films) and publish them online.
- Organised and undertaken cycle tours lasting between 3 and 10 days in the UK and France, typically riding 80 miles per day.
- Commute to university every day cycling a minimum of 50 miles per week. It has taught me skills to deal with cycling in traffic. In the holidays I cycle between 100-200 miles per week for fitness and enjoyment, often going on Sunday club runs with Stourbridge CC.
- Completed the expedition section of the Duke of Edinburgh Gold award, undertaking several three and four day walking expeditions in the Lake District and Snowdonia.
- Cofounded and serve as vice-Chairman of Imperial SB (Skateboard and BMX) Society.



vii. Dan exploring an art exhibition at the French Institute in Dakar.

European Itinerary

Day	Date	Destination	Notes	Dist. (km)
1	16/06	Paris	Hotel	
2	17/06	Orlean	Campsite	120
3	18/06	Tours	Youth Hostel	140
4	19/06	Poitiers	Youth Hostel	120
5	20/06	Cognac	Campsite with river swimming	140
6	21/06	Bordeaux	Youth Hostel	120
7	22/06	Bordeaux	Youth Hostel	Rest day
8	23/06	Castets	Campsite	148
9	24/06	Biarritz	Campsite	70
10	25/06	On-route	Roadside camp in Pyrenees	70
11	26/06	Pamplona	Peregrinos Hostel	60
12	27/06	Pamplona	Peregrinos Hostel	Rest day
13	28/06	Logrono	Campsite	100
14	29/06	Briviesca	Camped in carpark	110
15	30/06	Burgos	Peregrinos Hostel	60
16	31/06	Palencia	Camped in carpark	90
17	01/07	Tordesillas	Campsite	90
18	02/07	Salamanca	Youth Hostel	100
19	03/07	Salamanca	Peregrinos Hostel	Rest day
20	04/07	Placencia	Camped in park on bandstand	158
21	05/07	Caceres	Youth Hostel	80
22	06/07	Alemandrejalo	Camped in park	100
23	07/07	Monesterio	Peregrinos Hostel	90
24	08/07	Seville	Youth Hostel	100
25	09/07	Seville	Youth Hostel	Rest day
26	10/07	Seville	Youth Hostel	Rest day
27	11/07	Puerto De Santa Maria	Campsite	110
28	12/07	Terifa	Campsite	110
29	13/07	Gibraltar	European endpoint. Returned to Terifa to camp.	60



VIII French Route



IX Spanish Route

European Diary

Paris - Bordeaux. 5 days, 640km.

Getting onto the Eurostar leaving London for Paris was a tense but exciting moment for the team. Thankfully everyone's equipment was accounted for and everyone made it onto the train with no fuss. The journey itself was over alarmingly quick and we were quickly plunged into the centre of Paris. The 20-minute ride to the hotel proved fruitful as it allowed the team to road test the GPS, which was in full working order. The day was busy and everyone slept well.

The first day of timetabled riding took us from Paris to Orleans, which was around 120km. The whole team coped well exiting Paris. Spirits were high and we managed to get through the day rather swiftly. Arriving in Orleans we had trouble finding our first lodgings of the trip as we arrived to find the campsite 'closed'. However upon closer inspection it was found to be open to the public rather than commercially running. Once set up we got to sleep and unfortunately were treated to a 3 hour thunderstorm which came worryingly close to the tents at around 3am.

The second day's ride started a tad later than previously planned, as everyone was intent on getting in as much sleep as possible for another day on the road. The following ride that ensued proved to be rather heavy as we were led along an epic 137km route to Tours. There is not much to say about this day as we simply kept on riding and never really looked back. Once in Tours (which turned out to be a lovely city compared to its grim urban façade), we quickly found a very comfortable hostel where we passed out following a long day in the saddle.

The ride to Poitiers was around 120km and proved to be a very pleasant ride with a long downhill section coming in to the town of 100 bell towers. The weather was rather miserable but we enjoyed yet another comfortable hostel with a spacious room which we had too ourselves. The routine of the days was rapidly settling in and as a team we were really gelling together.

The ride to Cognac was excellent, France really showed its true colours and we were treated to excellent country lanes and village shops. We arrived in Cognac in no time at all and found the best campsite of the entire trip. It was incredibly cheap and alongside a beautiful river, which was safe for swimming, combined with the excellent local produce; Cognac proved to be one of the best destinations of the trip. Coincidentally, we

were treated to thunder once again. Tents and thunder are a rather terrifying combination.

Following four tough introductory days the team was relishing the ride into Bordeaux. The extra enthusiasm was needed as the opening 70km to lunch were a mad struggle against a hellish head wind combined with rolling hills. We arrived to a half-way house in the middle of a barren marsh with a road going through it; it was a surreal and desolate place. The team greatly appreciated the little cover from the wind they could find. A quick ride away and we boarded a boat crossing the Dordogne estuary, which was even windier! Having disembarked from the boat the wind was now on our side and launched us into the heart of Bordeaux where we quickly found the brand new youth hostel and got ready for a night of music (Estival) in the centre.

The following day was the team's first rest day. Edward's cousin Olivier showed us around town, and the team gained some much needed rest for the following section of the trip: The Pyrenees.

Bordeaux - Pamplona. 4 days, 348km.

We left Bordeaux with the intent of getting as far as we reasonably could to allow as much time to be spent in Biarritz. This caused us to ride 150km from Bordeaux to a sleepy little village called Castets, which had a brilliant campsite by a stream. Here we conversed with a man who owned a vehicle that would aptly fit in within a George Romero or John Carpenter flick. He was a traveller who spent half his time in France and the rest in North Africa. He gave us some useful information about the desert and the current state of affairs in Mauritania. This was vital as the team was especially interested; the last leg of the expedition was largely dependent on the route traversing Mauritania.

The morning after we had a short ride into Biarritz, the epitome of the French seaside. The beach was beautiful and it was wonderful to see the Atlantic coast for the first time on the expedition. The campsite we stayed at in Biarritz was a happening place and had lots of amenities on site. This allowed the team to spend a relaxing afternoon lounging in the sun. We were now at the foot of the Pyrenees and everyone felt that the ride was about to increase in difficulty.

The ride from Biarritz to Pamplona took two days, but essentially was one on-going ride. The first day started easily and we found ourselves riding popular French routes along with many Sunday cyclists to help maintain moral. However as we approached the Spanish border the hills got

steeper and emptier. We left the mainstream cycling crowd and continued climbing the Pyrenees. From the border everyone entered into a meditative state as all concentration was delegated to the heavy task of getting through the Pyrenees in two days with bikes weighing in excess of 30kg. Towards the end of the day we passed a mysterious Basque village where upon consulting the locals we were led to the village shop. The shop had an eerie vibe owing to its vintage interior, but we managed to stock up on amazing Spanish produce which we took with us to camp in a layby off of the lazy country road leading to the forest.

The next day we arose early and cycled uphill for another 2 hours. The final section of ascension was incredible as we started cycling into the clouds. The mist that enraptured us gave a euphoric sense of transformation as we finally hit the downhill that we had been waiting for. It shot us into yet another Basque village where we had a quick lunch before hitting Pamplona; our second rest day.

The rest day in Pamplona was a bit more productive than the one in Bordeaux and the team used the trip to purchase a percolator and a few knives. We also followed Hemingway's lead and sampled Pamplona's nightlife, which was far less captivating outside of San Fermin than we had hoped.

Pamplona - Salamanca. 6 days, 550km.

The ride to Logroño took its toll on the team as the heat really started to kick in and we started with a brutal hill climb (870m climb in 13km). The rest of the day followed a sore combination of rolling hills and intermittent head winds, which caused the whole team to pass out within moments of reaching the campsite.

Riding to Briviesca was the first time that the team morale seemed to sink. The road was long, straight and hot; the Navarran wind was torturous. We slogged through the day without enjoyment. Entering Briviesca however, we found a Pakistani kebab house who were extremely accommodating and really helped raise everyone's spirits.

The next day started heavy, with two steep hill climb sections. Fortunately following the second hill we hit a plateau and quickly rode into Burgos. Arriving early in cities after an early start is a good feeling; the siesta means that you can recuperate whilst not wasting the day away. Following the siesta we walked around town finding live music happening all over the place, as it was Burgos'

annual festival. That evening we carried out some much needed bicycle maintenance and found that none of the bike's gears had been correctly calibrated; leaving us one gear short of our full quota of eight gears.

Having made the rather useful observation that our gears were set up wrong in Burgos, we left ready to power on to Palencia. That extra gear let us push the pace up a bit more, and the change in landscape meant that we were easily pushing 35km/h on the flats. Perhaps that was too quick because we had our first major crash of the trip; whilst slip-streaming Ed came a little too close to the guy in front of him and came off his bike at 30km/h. Slight grazes patched up, we were on our way again! The next day involved much the same, flat terrain and surprisingly lots of cycling; but the day after we arrived in Salamanca for a well-deserved rest day.

Salamanca - Seville. 5 days, 528km.

Leaving refreshed and rested, we cycled further than originally intended, on to Plasencia and what was one of the trip's best days riding followed. We set a new team record of 160km with 1300m of vertical climbing achieved that day. The morning was fairly plain, up and down cycling until we came to a short but steep incline. Coming to the top of this we could see the reward of all the past several days gradual climbing. We stood at the top of the Valee del Jerte at the top of the world, looking at the most beautifully curvaceous road leading down into the valley.

And then came the most perfect 10km of descending ever, with straights letting you hit over 60km/h and corners spitting you out faster than you entered. Exhilarating is the word when you are hitting hairpins at 40km/h and having to brake hard. It is an unforgettable feeling; the wind rushing past your face, your bike straining against the lateral forces but your tyres holding everything in place. The ultimate result is that you and the bike are one, you are the bike racing round corners, and the bike is you, responding to your every command.

Sleeping arrangements in Plasencia were less than ideal, although surprisingly comfortable. The team ended up sleeping on a bandstand in the park surrounded by our bikes. Luckily we hadn't sawn our toothbrushes down, so we could all use them normally, and all that extra weight gave our arm muscles a much needed workout!

From Plasencia we cycled to Caceres, a beautiful medieval town, and the next day we moved on to Alemandrajelo. We treated ourselves to the

pleasures of the municipal swimming pool and were able to get ourselves feeling human again. Unfortunately we could not find anywhere to stay so ended up sleeping up in the park; to be awoken rudely in the morning by the sprinkler system turning on and nearly soaking us through.

It did get us off to an early start though, and we ended up in Monesterio by mid-afternoon, where we again managed to make it to the municipal swimming pool and even managed to find a Pelegrinos Hostel!

From Monasterio we cycled to Seville, where we had another rest day. Some incredibly fun riding was to be had again. We ended up on an absolutely freshly tarmacked little country road. Lots of climbing but lots of descending too. However the final stretch into Seville was quite a slog, with headwinds so strong that we had to maintain pedaling down downhills to keep up speed.

Seville - Gibraltar. 3 days, 280km.

From Seville we rode on to Puerto de Santa Maria and slept in a campsite by the sea. A strange feeling when we realised that the last time we had seen the sea was all the way back in

Biarritz. We realised that we had basically crossed Spain!

The next day was in our mind the final days riding in Europe, and boy was it a hard one. Quite a hilly day, with one massive hill. An entertaining moment was had seeing a British family come out of their holiday home at the top of a great steep hill looking at the group with sincere pity as we powered up, dripping with sweat. Finally though we arrived in Tarifa, the southernmost part of Spain.

We made Terifa our base in the South of Spain for a few days, but the day after arriving in Terifa we ventured out to Gibraltar to complete the European leg of the journey. An early morning hill climb to some great views across the Straits of Gibraltar to see Africa and the challenge ahead, but a very enjoyable ride with the bikes left unloaded. They literally flew up the hills all the way to Gibraltar.

And so the European leg of the journey was complete!



x. Initial problems with the identical luggage.



xi. Snack break on the first day of cycling.



xii. Leaving Bordeaux.



xiii. Ed contemplating the journey so far in the Pyrenees before camping on the roadside.



xiv. Another tough climb in the Pyrenees over.



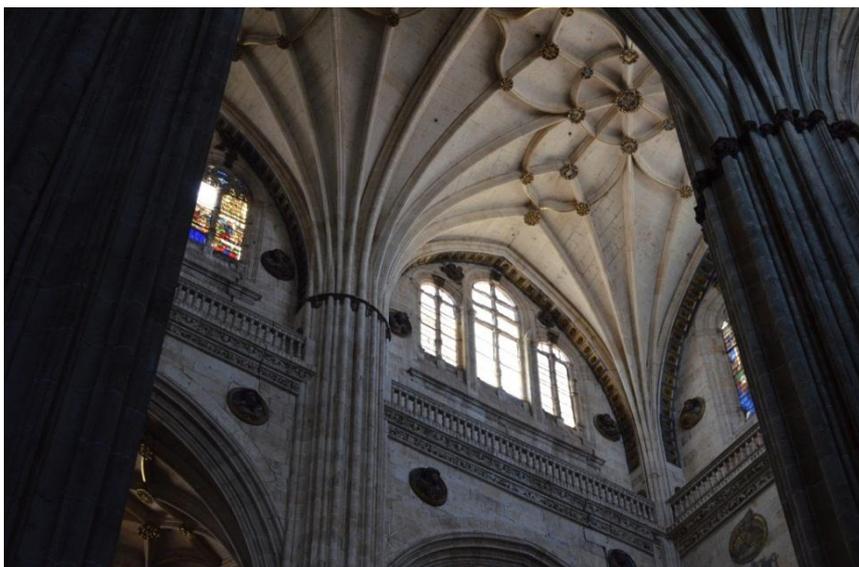
xv. The expedition offered some sublime views.



xvi. Shamon adjusts his gears after lights out at the Burgos Pellegrinos hostel.



xvii. The first crash of the expedition. Just some road rash.



xviii. We saw many ornate baroque cathedrals in Spain. This cathedral in Salamanca was particularly wonderful.



xix. Ben above the Valee Del Jerte - the best decent of the trip.



xx. Shmoon retires from a day at the beach in Terifa.



xxi. The end of the European leg. African adventures lie ahead.



BEAULIEU
DEMECO

NORVÉLO
Le Chasseur
de Pots

Africa Itinerary

Day	Date	Destination	Notes	Dist. (km)
33	17/07	Tangiers	Hotel	
34	18/07	Asilah	Hotel	50
35	19/07	Kenitra	Hotel	170
36	20/07	Rabat	Hotel	40
37	21/07	Rabat	Hotel	Rest day
38	22/07	Casablanca	Hotel- Bed bug Infestation	100
39	23/07	Casablanca	Hotel- Bed bug Infestation	Rest day
40	24/07	Casablanca	Hotel- Bed bug Infestation	Rest day
41	25/07	Settat	Hotel	80
42	26/07	Settat	Hotel	Rest day
43	27/07	Marrakesh	Hotel	170
44	28/07	Marrakesh	Hotel	Rest day
45	29/07	Marrakesh	Hotel	Rest day
46	30/07	Imintanoute	Hotel	110
47	31/07	Agadir	Hotel Beg Bug Infestation	140
48	01/08	Agadir	Hotel Beg Bug Infestation	Rest day
49	02/08	Agadir	Hotel Beg Bug Infestation	Rest day
50	03/08	Agadir	Hotel Beg Bug Infestation	Rest day
51	04/08	Tiznit	Hotel	105
52	05/08	Sidi Ifni	Hotel	80
53	06/08	Guelmin	Hotel	60
54	07/08	Tan Tan Plage	Hotel	160
55	08/08	Tarfaya	Hotel	190
56	09/08	Laayoune	Hotel Bed Bug Infestation	100
57	10/08	Laayoune	Hotel Bed Bug Infestation	Rest day
58	11/08	Laayoune	Hotel Bed Bug Infestation	Rest day
59	12/08	Laayone Plage	Hotel	30
60	13/08	Cape Bojador	Hotel	170
61	14/08	Petrol Station	Camping on concrete	180
62	15/08	Dakhla	Hotel	175
63	16/08	Dakhla	Hotel	Rest day
64	17/08	Birgandus	Hotel	255
65	18/08	Gendarme Post	Desert Camp	210
66	19/08	Gendarme Post	Desert Camp	205
67	20/08	Nouakchott	Hotel	110
68	21/08	Nouakchott	Hotel	Rest day
69	22/08	Gendarme Post	Desert Camp	130
70	23/08	St Louis	Hostel	100
71	24/08	Kebemer	Hostel	110
72	25/08	Thies	Campsite	90
73	26/08	Dakar	Hotel	65
80	02/09	LONDON		



xxii Moroccan Route



xxiii Western Sahara, Mauritania and Senegal Route

Africa Diary

The following diary entries for Africa were taken from the expedition website www.p Aristodakar.org which was updated as we travelled.

Update from Asilah

Yesterday we crossed the straits of Gibraltar via the Algeciras - Tangiers Med crossing. Tangiers med is a new port; a huge concrete platform and not much else. After Moroccan "help", we had five bikes loaded on the transfer coach to Tangiers but only enough room on the coach for four of us. Ed volunteered to take the next coach and we were reunited an hour later at the Tangiers bus station (read edge of six tributary, 4 laned roundabout in the centre of town without any order). It was hot and frenetic.

We regrouped and headed towards the old part of town taking rooms in the hotel du Paris. Then we explored the medina. Men sit paunched or stickly, single rowed, facing out from the salons du the. Beggars mutter on the floor, constricting the flow of crowds. The city gets busy at dusk. Tangiers is not beautiful. The smell of fish and sewage is overpowering down some of the narrow alleys.

Today we cycled a short distance to Asilah. A strong wind the whole way and a sudden gust blew two of the team into the gravel on the side of the road. Much smaller than Tangiers and much more pleasant. It's still early but seems sleepy in comparison. Whitewashed buildings, geometric patterned tiling adorn over-round Arabic doorways in the old town. A thick, Portugese built defensive wall surrounds the old town.

Update from Marrakech

This update comes from Marrakech and its mystic souks. We are staying in a beautiful riad south of the main square – Place Jemaa El Fna – and the souks. Ed's Mum, Sara, joined us for this section, scoping out the riad in Marrakech and hotel in Settat, bartering for us and flying in with much needed stocks of talc powder and cereal bars and more. Many thanks for your help and generosity and hope you enjoyed your trip.

We left the decaying art deco architecture and the thin veil of grey cast from the thousands of two stroke mbyettes of Casablanca after spending three days there – longer than planned. After establishing that there are no longer ferries around the FCO red zone that is Mauritania and that catching a lift on a container ship is not possible after the practise was outlawed 10 years

ago we had to get the train back to Rabat to get Mauritanian visas to keep our options open. At the Mauritanian embassy we met several Europeans who had travelled the route through Mauritania and they all said the convoys travelling through were safe but the landscape was monotonous and resembling a demolition site in sections.

Morocco is an excellent surfing location and so we took the opportunity, firstly in Rabat at the surf school Mohammed VI set up, then in Casablanca on our unexpected rest day. Receiving a minimalist lesson in French with Ed translating, we hit Rabat's less than daunting waves. In Casablanca we graduated (at our own recommendation) to smaller boards and attempted to surf Casablanca's meaner waves. Everyone got slammed a few times with boards pirouetting in the air while one of us was somewhere underwater tumbling in the wash. We're making progress though and eyeing up a surf school in Dakar on an island owned by the rapper AKON.

Between Casablanca and Marrakech we spent a day in Settat: It's a smaller town than anywhere else we have stayed and coupled with the Ramadam eating habits of Moroccans we struggled to find somewhere to eat. We shouldn't have worried though because Cafe Titanic was open! I don't know why they thought the Titanic was a good marketing association for a small cafe in an untouristy Moroccan town either.

We took a rest day in Settat because Chris wasn't feeling too well. So Ed's mum drove us, six people packed into a Peugeot 206, Moroccan style (three in the front and three in the back) to Kasbah Boulaouane. After being pulled over by a policeman who didn't bat an eyelid at the passenger overcrowding, we arrived at this spectacular but crumbling kasbah perched above an arid-red valley.

Cycling from Settat to Marrakech was our longest distance yet – 171km. The road was fast and hot. We stopped for lunch by a derelict cafe and petrol station. The attendant was delighted for the company and gave us a bag of refrigerated cactus fruit and expertly cut them open for us. He then came out with melon and offered us coffee. There's quite a few hustlers in the souks but everyone in the country has been very friendly.

Update from Laayoune

Greetings from Laayoune in Western Sahara/ Greater Morocco/ disputed territory. Despite the title it is peaceful and very little has changed from

the rest of Morocco with the exception of UN land cruisers sitting idly in the carpark of the four star hotel and Moroccan military personnel in olive green suits whizz around comically on mobylettes everywhere.

Since the last update in Marrakech we have been through Agadir, Tiznit, Sidi Ifni, Guelmin, Tan Tan Plage and Tarfaya. The desert properly started after leaving Guelmin. Plains of sand, hills bulging on the horizon sometimes, other times the plain continues indeterminably. Greying shrubs struggling for life sometimes populate the sand. Most of the time it is not soft sand dunes although there were some between Tan Tan Plage and Tarfaya.

The weather is unexpectedly cool and overcast at times, especially close to the coast. The hottest section was in the Anti-Atlas mountains between Marrakech and Agadir, hitting 48 degrees celsius. In the desert it rarely goes above 30 degrees celsius, and we set off at 5 in the morning so all the riding is done in very cool weather. We often set off with jumpers on in the morning! The daily distances have been increasing as the prevailing wind is behind us and the road in the desert is flat. We cycled Agadir to Laayoune in six days.

One of the nicest places we have stayed so far is Sidi Ifni. A quiet seaside town with cubed whitewashed buildings with blue weathered metal shutters. The beach squares up to the Atlantic and takes a beating from powerful waves. Our surfing technique wasn't up to the size and power of the waves but we learnt some life lessons about persevering. The main problem was we always got washed back to the shore before we got to the region before the waves broke. In surfing jargon we couldn't "break-through". We finished the day watching the sun go down on the Atlantic from the hotel roof terrace.

Leaving Sidi Ifni we got involved with some impromptu goat herding. At the top of a climb we sat down to watch some locals at work loading goats into lorries and Chris showed he had some natural flare, helping pen the goats in one place while the locals wheelbarrowed the goats into the transport.

In Guelmin we met Mohammed who owned a shop in Camden as well as Guelmin. He was in Morocco for Ramadan as it was easier to fast around others adhering to Ramadan. He served us mint tea above his shop and his cousin gave us some advice about travelling through Mauritania. We also picked up our Tuareg headscarfs which saved us later on when the

wind whipped up sand over the plains. We went to an oasis and met some nomadic tribesmen selling jewellery in the oasis during Ramadan. Not long now and we should be in Dakhla, the capital of Western Sahara in a few days!

Update from Dakhla

Having been held up in Laayoune for a few days due to illness, we have arrived in Dakhla, covering a massive 520km in three days.

Our first day's ride took us from Laayoune to Boujdour. Our routine of getting up at 4 in the morning also has the advantage of us arriving at our destinations early in the afternoons even with obscene distances to cover. The fact that we had an insane tailwind may also have helped slightly – at times we were being pushed along at 25km/h without pedalling!

Between Boujdour and Dakhla there are no major towns so we set off the next day planning to ride as far as we could and then camp out in the wild. After a day of riding we arrived at a truck stop where we were given a warm welcome and invited to camp on the forecourt.

It was here where we met a friendly camel looking out from his pen as well as seeing three goats being slaughtered and skinned by extremely skilled hands within a matter of minutes. The rest of the evening was spent in the truck stop tucking into a delicious and wholesome meal.

The next morning after a somewhat uncomfortable night's sleep on the concrete floor – Ed and Dan were reduced to taking turns on one inflatable mattress as one punctured – we set off. This day's ride was the easiest with the clear destination of Dakhla beckoning ahead of us.

Riding through the desert up to this point has been an interesting experience. It is true that the landscape does not vary very much, indeed it only really changed for a while at the end of the second day and on the ride into Dakhla, but that is not to say that the landscape is necessarily boring. There is a beauty to its bleakness, something quite awe-inspiring that is a mental challenge to ride when you see the road you are travelling along fade into the distance with no visible end, yet is intensely satisfying when you get into the "zone" and are just able to power along for kilometres on end without stopping, without thinking.

And then of course there are your fair share of spectacular moments; cliffs jutting into the sea, vast expanses of Sahara being lit up by the morning sun, the surprising rock formations just

before the truck stop and the almost paradisiacal approach into Dakhla along a road spanning across the peninsula over a gigantic plain of sand before turning along the lagoon with vast white beaches populated by the local kite surfers being gently lapped by waves.

Our arrival in Dakhla is quite a momentous occasion and, although no one in the team can quite believe it, it is the last major town before Mauritania and the end of our journey in Morocco as we know it. Beyond us lie 350km of mostly uninhabitable desert to the border with Mauritania. Afterwards though, the lush Savannah should creep steadily into our sights and the Sahara will be well and truly dealt with. Chris expects elephants...

Update from Rosso

We headed back up the Dakhla peninsular into a strong head wind reducing our progress to a slow crawl. As we had already cycled this section we felt it was just to hitch a lift to the roundabout where we turned off for Dakhla. So at the police checkpoint on the outskirts of Dakhla we hussed a lift in one of the ubiquitous Renault 21 estates, hauled the bikes on the roof, and rejoined our route.

Obviously now the wind was behind us we rocketed through more barren desert. We managed 265km in one day and rested up in a Moroccan installed road-stop town called Birgandus with not much but a petrol station, hotel and police station. We cooked sardines and rice in the room, Shamoon went to the garage to try and get another sheared pannier rack bolt out of his frame to no avail, wires and a jubilee clip will have to hold it for the time being.

The next day we had 80km to Guerguerat, the last Moroccan town before the minefield separating Western Sahara and Mauritania. There was plenty of traffic heading down, including Porsches and Range Rovers allaying our fears that Mauritania was some bandit country where we would be stripped of our bikes and equipment or worse still taken hostage by terrorists. The border control didn't take too long but no-one seemed to know how to transfer Dirhams to Mauritanian Ouguiya. It turned out that in no man's land plenty of people would trade with you. 100 Dirhams got you 3400 Ouguiya, the standard rate offered by everyone.

The track through no man's land is littered with burnt out cars and TV sets. The track at best is rock and at worst sand with tyre marks in it. No signposts or guides but just other traffic to follow.

After 4km you reach the Mauritanian border control. Despite being told we'd need to give away a couple of bricks of the infamous American Legend cigarettes for a smooth border crossing we had no problems with corruption or even being held up. We got out passports stamped and were on our way.

There is not much in Mauritania. The desert is bleak and rocky with huts constructed from any scrap available hugging the road. There are signs advertising camel milk along the road but despite trying and knocking on hut doors we couldn't find anyone to serve us. You don't see many people anywhere. In the north of the country we saw the world's longest train carrying iron ore – Mauritania's only export. It trundled passed whisking sand up turning the sky as yellow as the floor. At the border we had met two English guys who had travelled up from Nigeria on a 250cc motorbike who had hitched on the train. They were covered in black soot, looking like hardy adventurers.

First night in Mauritania we didn't make it to the Gendarme checkpoint so we half-heartedly hid behind a bush and started cooking dinner of more sardines and rice. We didn't feel threatened so didn't go to great lengths to camouflage ourselves. It was dusk and we thought soon no-one would be able to see us in the dark anyway and we would be gone by early morning. Dinner was nearly ready, Shamoon was jostling with the tent and a car slowed down and pulled over. A lone figure starts walking towards us. Turns out he's from the Gendarme checkpoint 5km onwards. We can't camp here and have to continue on to the checkpoint, so we have to pack our stuff up, postpone dinner and put the saucepan in the car. He tails us the distance, we cycle fast enjoying the special escort but also conscious of not wanting to hold him up. We finally arrive at the checkpoint and get to eat dinner. They point to an area of indistinct sand and say we should camp there.

Next day, same routine. Early breakfast, and we head out after stacking up on water from a petrol station. We ride all day. A comfortable pace for an uncomfortable amount of time. My hands and bum start hurting. I have to shuffle about, adjust my seat angle several times throughout the day. I rip up and ducktape lycra trousers I don't need any more to my handlebars to make a larger area for my hands to grip. Keep adjusting them. I appreciate why someone might install those ludicrous looking butterfly bars on their bike now.

We see some dunes in Mauritania and part of the desert is a rich orange or even red colour. It gets slightly hilly then flat again. Again we struggle to get to the Gendarme station before dusk and they prowl behind us and try and scoop us into the car (another Renault 21 estate) and drive us there. But we protest and through the language defying beauty of numbers and standard units we explain that with our projected average speed we will reach the checkpoint just before sundown, and they allow us to continue, driving on, waiting a little ahead, then repeating. We really don't feel it is dangerous to warrant such attention but it seems like national protocol.

The last day it gets greener, we feel it threatening to rain, and we reach the border at Rosso. On viewing your passport a guard opens some large battered gates and lets you into the port of the river crossing to Senegal. I was feeling slightly feverish, an unfortunate place for it. People crowd around, try and sell you unnecessary tickets for

the free ferry crossing. There is no information desk. If there was I'm sure it would be burnt down by those who make their money from selling the tickets. Out of ignorance, wanting to be left alone and official looking people getting angry we buy about 500 kg of baggage allowance for the ferry across the River Senegal. (After it transpired the service was free and we didn't need any, but it cost so little and got us across it wasn't too painful.

Update from Dakar

As the title suggests we have all arrived safely and soundly in Dakar. We are presently packing for the flight home tomorrow and preparing for a night of celebration! We will compile some photos and have a full rundown of the past fortnights exploits up in a few days! Remember to keep following as we will be sifting through thousands of digi thumbnails, dozens of 35 rolls and hours of video footage in preparation for an exhibition towards the end of the year!



xxiv. A container ship in the port of Algeciras.



xxv. Cycling through a street market in Morocco.



xxvi. Goats being lifted into a truck on the edge of the Sahara.



xxvii. Ed in his taureg scarf.



xxviii. There weren't many sand dunes. These were seen leaving Laayoune.



xxix. No man's land between Western Sahara and Mauritania is littered with cars, tyres and old TV sets.



xxx. The ferry over the River Senegal at Rosso.



xxxi. Entering Dakar we encountered torrential rain and flooding. A handlebar view from the GoPro.



xxxii. Caught in the downpour - another GoPro image.



Photography

Throughout the trip a digital SLR, two film SLRs, a compact digital and an iPhone camera were used to record the trip. The films are currently being developed and the intention is to show the photos at an exhibition.

Video

The expedition was filmed with a Canon HF511 camcorder and a GoPro Hero with handlebar and helmet mounts. A video is currently being edited including interviews with the team to be shown at the 2013 London Bicycle Film Festival.

Charity

The trip, proposed as Paris to Dakar, was cycled for Action Against Hunger. Taking from the Action Against Hunger website they are:

“an international humanitarian organisation committed to ending child hunger. Recognised as a leader in the fight against malnutrition, Action Against Hunger saves the lives of malnourished children while providing communities with access to safe water and sustainable solutions to hunger. With 30 years of expertise in emergency situations of conflict, natural disaster and chronic food insecurity, Action Against Hunger runs life-saving programmes in over 45 countries benefitting seven million people each year.”

The charity was chosen as we would be traveling through part of the Sahel region - a strip of Africa including Mauritania and Senegal - suffering a famine that Action Against Hunger was involved in combating. We hoped that choosing a charity with a connection to the area we were traveling in would strengthen people's belief in the authenticity of our fundraising ambitions.

We aim to raise £5500, approximately £1 for every kilometre cycled. As of 08/11/12 we have raised £1640, 29% of our target. We expect this to rise as we secure further donations from exhibiting photographs and a video of the trip.

To raise awareness of our fundraising ambitions and secure donations we took several actions:

- During the trip we wore t-shirts and cycling jerseys emblazoned with the Action Against Hunger logo. The logo is clearly

visible in many of the photos and videos we exhibit.

- We set up a just giving page: www.justgiving.com/ICParistoDakar. This website sets out our aim and provides an easy and secure way for people to donate online as well as providing a running total and percentage completion to our target.
- We regularly urge our Facebook and Tumblr followers to donate and provide the just giving link to make it easy. Similarly we remind our website viewers to donate in the signoff of each update.
- We propose to hold an exhibition of the photographs with posters raising awareness of our fundraising campaign.
- Information about the charity and the just giving link will be shown in the credit reel of the video of the trip.

Preparation

None of the members of the team had ever undertaken a journey of this scale on bicycles before hence there was a lot of preparation involved in getting the expedition off the ground. After the team formed it quickly started work on writing the expedition proposal for the Exploration Board. This turned out to be beneficial as it made the team aware of all the problems that it could face and gave structure to the things that needed to be done before the departure date.

The team would meet on a weekly basis to organise the expedition. To seek advice the team met Tom Allen, an experienced adventure cycle tourist. In the meeting at the Royal Geographical Society he shared his experience with the team and gave the team a better idea of budgeting and the amount of weight we would be carrying.

The preliminary route was decided on by going over the multiple blogs on the internet. After getting the idea of the road surfaces it was decided that the best bike to be used would be some kind of cyclocross bike that would be able to accommodate pannier racks. Eventually we were able to come to a deal with Madison UK to provide our bikes and equipment at a much reduced price. We chose to take Genesis Day-One Alfine 8's.

The whole team underwent first aid training while two members also took the advance course in Expedition First Aid. The team all got their relevant vaccines before the expedition.

The team had weekly spin classes and ethos and also went on longer bike rides on the weekends to Windsor and Brighton. Every team member was also expected to do individual training to make sure they were up for the task at hand.

Training

Safety

Each member of the team underwent full outdoor activities first aid training Marlin Training. To consolidate on this knowledge, Shamoan and Ed also underwent Expedition First Aid training (also with Marlin Training).

Physical

The team trained throughout the year through a combination a mixture of endurance and logistical

training. Interval training, weekly long cycle rides and working on general cardiovascular fitness all allowed the team to reach the same, high level of fitness for the expedition. The emphasis for training lay in long periods of low to medium level exercise. It was important to let our muscles adapt to extended periods of exercise so that the risk of injury is minimised whilst on the trip. On the run up to the cycle itself, a few sessions of weight training were added to aid muscle conditioning. Furthermore, the group finished overnight cycle rides over the Easter period to consolidate the previous training and also to work on our ability to navigate between destinations.

Below is a typical training schedule for the team in the period leading up to the ride.

1. Monday	3 - 5 mile run / 1 hour swim
2. Tuesday	Spin class (Ethos gym)
3. Wednesday	Personal Training
4. Thursday	Break
5. Friday	3 - 5 mile run / 1 hour swim
6. Saturday	Break
7. Sunday	60 mile ride (e.g. London to Brighton)
8. Monday	3 - 5 mile run / 1 hour swim
9. Tuesday	Spin class (Ethos gym)
10. Wednesday	Personal Training
11. Thursday	Break
12. Friday	3 - 5 mile run / 1 hour swim
13. Saturday	Break
14. Sunday	20 mile ride (e.g. Richmond Park)

Equipment

Bikes

The success of the expedition was directly related to the equipment that was used. Consequently, the bikes chosen for this expedition followed a certain criterion. The group found steel framed touring bikes to be optimum for the journey. Though they are slightly heavier than their aluminium counterparts, they have the advantage of being more comfortable and being easily repairable due to the abundance of steel welders in Europe and Africa. The bikes needed rear and front pannier rack capabilities to hold the large amounts of equipment that were carried.

Following part-sponsorship from Madison, the group acquired 5 Genesis Day-01 Alfines. The bikes fitted the criteria initially set out and needed little repair throughout the entire journey despite the long distances and heavy loads. The group were slightly dubious about using internal hub gears on the expedition due to a lack of experience repairing them. However, it transpired that the gear hubs needed less work than normal cassette gears would have, only needed recalibration every 1000km or so. The 8-speed gears were slightly frustrating at times because they didn't cover a wide enough range to be useful when going at high speeds downhill.

Tyres

The team decided on 28cc Continental Gatorskin tyres for the trip. These were virtually indestructible for much of the journey, sustaining 4 puncture between all 5 team members.

Racks

The majority of the team used Topeak Super Tourist DX Tubular back racks and Blackburn standard front racks. Both the racks had to be compatible with disc brakes which narrowed our choices slightly. The back racks sustained minimal wear and tear in Europe, albeit with a few sheared bolts that needed replacing every now and then. However as the trip progressed, there were a number of times where the tubes of the back rack would actually sheared and needed to be welded back together. Once welded there were no more shearing and the underlying conclusion was that we were putting a bit too much weight on them anyway due to the increased water need in the desert.

The front racks were hard to attach, slipped from their position a lot and had a tendency to shear and fall apart. The team would recommend buying a more sturdy one with a tube that connect the two sides over the wheel.

Clothing

Much of the clothing was left down to preference of the team. All being experienced at cycling, the choice was given to whatever the wearer found most comfortable. All helmets had good ventilation and shock resistance. $\frac{3}{4}$ length gloves were worn for most of the journey although these wore quickly whilst the rider's hands became slowly accustomed to the pressure on the bike. Apart from avoiding a few numb fingers occasionally, we would recommend gloves only for extra comfort and aesthetic reasons. The majority of the clothing already had reflective strips, meaning these could be seen easily even with very little light. The bikes themselves were orange and stood out like sore thumbs on the road no matter what the time of day.

In practice, although the team carried sunglasses, it was down to the preference of each team member whether they wanted to wear them or not. Cycling caps were worn by some of the team although they did little to avoid from sunburn and were again a more aesthetic choice than anything else.

SPD cycling shoes were used by the entire team for the duration of the journey. They offered superior efficacy over trainers and pedal cages by allowing power to be transmitted from the legs to the pedals for a greater degree of rotation of the crank. The cleats are recessed on SPD shoes so that one can still walk in the shoes. These proved incredibly versatile and needed only to be tightened every so often. Spare cleats were carried but not used.

The type of clothing and quantity was chosen with efficacy for cycling, weight and protection from the environment in mind. Synthetic fabrics were chosen because they provide a good combination of not absorbing moisture, good moisture wicking properties and being lightweight. Merino wool base layers were considered for their good wicking properties. However, price factored these out of the kit list and in the end, these were not sorely missed. The climate throughout the trip was warm so heavily insulated clothing was unnecessary. A lightweight waterproof and windproof jacket proved very useful for

unexpected rain showers and for when temperatures dipped in the occasionally.

The warm climate resulted in a lot of perspiration and there was a risk of bacteria growth in clothing. Clothes were washed on a regular basis and dried out quickly in the hot climate. A lightweight synthetic fibre towel with antibacterial properties by Lifeventure was chosen to save weight, space and because of its superior drying time (6x faster) than a conventional towel.

One set of lightweight casual clothes were taken for days off the bike. Jeans were avoided as they are heavy and absorb water. Comfortable but lightweight shoes were taken for exploring places off the bike.

In Guelmin, the team acquired some desert scarves that were incredibly useful at protecting the head and neck from the sun as well as keeping you cool.

Camping Equipment

As this is going to a very physically demanding expedition in a hot climate emphasis has been given to the lightness and comfort of the equipment. The group borrowed 1 three-man tent from Imperial College Outdoor Club. Adding to this, the group purchased 2 MSR Hubba Hubba's which proved incredibly effective in their use. These accounted for the whole group even if one tent broke. Gelert X-treme 800 and similar lightweight sleeping bags were bought by each member of the group in conjunction with 5 Klymit X-frame sleeping mats. Two stoves-sets and a few pots and pans were also borrowed from the expedition board.

Medical Equipment

The group carried one large main medical kit along with a few subsidiary pieces spread among the group. Advice was sought from Imperial College Medical Centre and the Royal Geographical Society about the contents of the kit considering the varying topography of the journey.

Communication Equipment

The group stayed together for the duration of the journey but in case of emergencies each member carried a mobile phone with a valid sim for each country. Two-way radios were considered as an option to better communicate with each other but the conclusion was drawn that these would be a frivolous purchase. A satellite phone was carried for areas not covered by mobile phone networks. Solar chargers were used by the entire team in areas where electricity was scarce.

Food, Water and Nutrition

Nutrition

Due to the strenuous nature of the expedition, the team consumed on average between 3500 and 4500 calories each day of cycling and slightly less on rest days. This figure sits at the lower end of our initial estimate. The warm climates tended to suppress the team's appetite in comparison to cold days cycling in England where hunger is almost always an issue.

Since we weren't losing too much energy as heat, it was much easier to keep on top of eating than initial expectation would suggest. Nutrigrains and similar cereal bars were carried by each rider and eaten at regular intervals on the ride (~45 mins). The combination of complex and simple carbohydrates in the bars meant we could ride for longer without stopping and stave off hunger between meals. The focus for breakfast and dinner was initially on carbohydrates. However, the team ended up following a fairly balanced diet which aided in team morale as well as muscle regeneration and digestion. Tinned vegetables, cured meats and local bread were general staples of the team. Through Western Sahara and onto Mauritania, fried fish was readily available at most towns. Consequently, our diet shifted to slightly more seafood based products through this part of the journey. Decisions were constantly made on the ground with regards to choosing the most affordable, nutritious and safe sources of food whether it was from supermarkets, street stalls or local shops.

Food

Acquiring food in France and Spain did not pose any problem for the team. The team's collective language skills were more than necessary for the task at hand. As a result, the team stayed very well fed. The abundance of shops and stalls in French and Spanish towns provided the bulk of the food needed and the food budget was spent wisely.

Into Africa, the team continued to eat well, albeit whilst encountering some issues with Ramadan. Opening times for shops were shorter than in Europe and generally at obscure hours. Here, again, the team's grasp of Spanish and French satiated all needs.

Water

Through France and Spain water was plentiful and the team had no trouble acquiring more when supply was low. In fact, in Spain, water pumps were found at fairly regular intervals (~50km) that

provided easy opportunity for replenishing supplies. At the beginning of each day, tap water was used where possible but cheap bottled water was also procured occasionally.

The heat picked up, as did our distances, entering Africa. As a result, we were drinking a lot more water and carrying more as well. Water, again, was universally available throughout our journey and we would generally carry no less than 8 litres per person at any one time. Throughout Africa bottled water, purchased in 5 Litre bottles was relied upon.

Accounts

Income

The group approached a large number of organisations with regards to sponsorship and discounts on their specialist equipment. Company exposure given through group presentations, photos with their equipment and our 550 followers on Facebook and Twitter were suggested incentives when contacting them.

Some costs were reduced by borrowing equipment from the outdoor club as well as from the exploration board itself. In particular, cooking equipment, the satellite phone and the 3-man tent were greatly appreciated.

Listed below are companies who gave equipment sponsorship or significant discounts on their equipment

- Madison (Technical clothing, equipment)
- Genesis (Bikes)
- MSR (Tents)
- Exposure (Lights)
- Klymit (Sleeping mats)
- Lifeventure (Clothing, accessories)
- Lifesystems (First Aid Kit)

with a breakdown of the expedition's income shown:

- Imperial College Exploration Committee grant £ 3,750.00
- Personal Contributions: £13,300.00

Costs

The main costs incurred during the expedition were inevitably those of food and, to a lesser extent, accommodation. Throughout France and Spain, the group spent, on average, £7 per day per person on food and £5 per day per person on accommodation. This last figure takes into account hostel costs, camping costs and the night where we camped for free. Our accommodation

costs were also reduced by following the Camino de Santiago, recommended to us by the exploration board.

Into Africa our costs decreased universally to around £5 per day per person on food and £4 per day per person on accommodation. Whilst on the trip, the single most expensive purchase was the flights back to London from Dakar at £411.70 each.

Bibliography

Books:

- RGS Expedition Handbook
- Planning A Small Expedition 1991/92 Seminar Notes
- Expedition Planners' Handbook and Directory
- Reru Valley Expedition Proposal 2011
- Radiation measurement principles for PV performance rating Dr. Alexander Los
EKO Instruments Europe B.V., Leiden, The Netherlands
- Concentrating Solar Power
Best Practices Handbook for the Collection and Use of Solar Resource Data
Tom Stoffel, Dave Renné, Daryl Myers, Steve Wilcox, Manajit Sengupta, Ray George, Craig Turchi

Websites:

- <http://www.medicinenet.com> (22/01/2012)
- <http://edition.cnn.com/HEALTH> (22/01/2012)
- <http://www3.imperial.ac.uk/expeditions> (22/01/2012)
- <http://www.rgs.org/> (22/01/2012)
- <http://re.jrc.ec.europa.eu/pvgis/> (22/01/2012)
- <http://maps.google.co.uk/> (22/01/2012)
- <http://www.nhs.uk/> (22/01/2012)
- <http://www.thebigafricacycle.com/> (22/01/2012)
- <http://www.lonelyplanet.com/> (22/01/2012)
- <http://www.allianzworldwidecare.com/> (22/01/2012)
- <http://www.fco.gov.uk/> (22/01/2012)
- <http://www.wallisonwheels.com/> (22/01/2012)
- <http://takeonafrica.com/> (22/01/2012)

Appendices

Risk Assessment

The Likelihood and Seriousness are graded out of five, and the Risk Factor is the product of the two numbers. The Risk Assessment has been divided into Four Sections: Risk to Health, Risk due to Environment, Risk Involving Equipment and General Risk.

Risk to Health:

Risk	Symptoms	Consequences	Prevention	Response	Likelihood	Seriousness	Risk Factor
Heat Stroke	Nausea vomiting fatigue weakness headache muscle cramps and aches dizziness.	high body temperature the absence of sweating, with hot red or flushed dry skin rapid pulse difficulty breathing strange behaviour hallucinations, confusion agitation disorientation seizure	Keeping Hydrated and drinking at least half a litre of water every hour while cycling in the desert Wearing clothing that keeps you cool Cover the back of neck and head, to keep out of direct sunlight Stopping for water breaks every hour while cycling	Get the victim to a shady area, remove clothing, apply water to the skin, fan the victim to promote sweating and evaporation If the person is able to drink liquids have the person drink lots of water Monitor body temperature with a thermometer and continue cooling efforts until the body temperature drops to 101 to 102 F (38.3 to 38.8 C)	3	5	15

Dehydration	<p>Dry mouth</p> <p>The eyes stop making tears Sweating may stop</p> <p>Muscle cramps</p> <p>Nausea and vomiting</p> <p>Heart palpitations</p> <p>Light-headedness (especially when standing)</p> <p>Weakness</p> <p>Decreased urine output</p>	<p>headache</p> <p>weakness</p> <p>dizziness</p> <p>fatigue</p> <p>feel tired and lethargic</p>	Same as above	<p>Make victim drink lots of water</p> <p>Get victim out of sunlight</p>	3	3	9
Malaria/ other diseases	<p>Fever</p> <p>Chills</p> <p>Headache</p> <p>Sweats</p> <p>Fatigue</p> <p>Nausea and vomiting</p>	<p>Dry cough</p> <p>Muscle and/or back pain</p> <p>Enlarged spleen</p>	As mentioned in report	Assess situation and look into possible evacuation	1	5	5

Risk due to Environment:

Risk	Consequence	Preventative measures	Likelihood	Seriousness	Risk Factor
Road traffic accident	Death\Serious injury	Being vigilant while riding on the road at all times Using reflectors and putting mirrors on bikes Avoid riding at night	1	5	5
Getting lost	Getting delayed and running out of supplies	Use maps and GPS to stay on course and ask local knowledge about routes Have each member carry a mobile phone at all times	2	3	6
Theft	losing our mode of transport and travel documents	Lock bikes at night with d lock and attach to tent keep documents and money insight all the time Inform consulate about travel for each country	3	3	9
Lack of hygiene increasing risk of disease	Getting food poisoning or getting ill	Always use bottle water where possible Avoid eating uncooked food from the markets Avoid salad Carry water purification tablets	3	3	9
Scorpion or snake bite at camp	Death or serious bodily harm	Camp away from rocks and places that are prone to have snakes or scorpions Shake out shoes and sleeping bag before use Carry Satellite phone in case of medical emergency	1	5	5
Minefield	Death or serious bodily harm	Only stay on marked paths. Do not camp in wild in mine prone areas i.e. Northern Mauritania	1	5	5
Mugging	Injury and lose of items	Stick together in the group Keep a low profile do not have cameras phones and computers visible to the public	1	5	5
Sunburn	Irritation on skin making progress painful	Use lots of sun screen SPF 50+ cover body to avoid direct sunlight	4	2	8
Dust Storms	Suffocation, injury due to road accident	Do not travel if there is a warning for a sandstorm Wait out sandstorm and stick with the group Carry a dust mask and ample amount of water If sandstorm is approaching get off the road and find a building to get into. Otherwise seek shelter behind a rock. Do not seek shelter behind a sand dune as danger of getting buried	1	5	5

Terrorist Attack	Death/Kidnap	Small threat in Northern Mauritania from the Islamic Maghreb but road is still frequented by tourists Never disclose location on blog Leave Nouadhibou as soon as possible and stay the nights in gendarme posts which are never more than 100km apart Inform consulates in Rabat about travel plans	1	5	5
------------------	--------------	---	---	---	---

Risk Involving Equipment:

Equipment	Consequence	Preventative measures	Likelihood	Seriousness	Risk factor
Breakage of Bike or parts	Inability to travel	Carry cycle tools and puncture repair kit and fix bike on the road Steel frame touring bikes will be given preference as they are known to be tough and can be welded if they break If bike is still not usable then purchase a bike locally	1	5	5
Breakage of Stove	Inability to cook	Take spare stove, Frequently check for any malfunction and take repair kit Carry spare cash to buy cooked food locally	2	3	6
Fire at camp	Having everyone in one tent, possible burns	Cook away from tents Pitch tents away from each other	1	5	5
Fuel loss	Fire hazard/ inability to cook	Use appropriate fuel bottles, and fill fuel bottles away from tent. Frequently check fuel bottles	1	3	3

General Risk:

Risk	Consequence	Preventative measures	Likelihood	Seriousness	Risk Factor
Unable to meet physical demands of expedition	Slow down group	Follow the exercise routine as prepared by the team. Acclimatise to heat as team starts to travel south. Undertake a long cycling trip in the Easter break.	2	5	10
Strain Injury	inability to use affected body part	Identify possible strain injuries before departing and adapt cycling technique. Maintain a stretching routine after each day of riding	3	3	9
Small injuries	inability to use affected body part	Be vigilant and attentive at all times The whole team will undertake first aid training and will do a desert survival course before undertaking the expedition A first aid kit will be carried by the team	2	2	4
Large injuries	Death or bodily Harm	Always stick with the group Carry a satellite phone Always stick to the road(furthest distance from town is 200km) Have a contact in each country Have comprehensive medical insurance with evacuation	1	5	5
Bad Weather	Slows down expedition/ Accident on the road	carry appropriate clothing as in waterproofs for Europe Have mudguards on bikes Install lights on bikes	3	1	3
Exhaustion	Become ill and unable to carry on	Have frequent rest days between cycle rides. Take the slowest persons pace Always carry ample supplies Carry high energy foods	4	2	8

Safety Plan

The safety plan had been written as a reference guide to encompass any emergency encountered during the trip. It was prepared to make sure that all risks and therefore all the contingency measures catering to these risks were considered, and that the group as a whole understood them. This in turn minimised risk and in case of an emergency ensured that everyone was prepared to act quickly and effectively according to the situation that arose.

Participants:

Name	Role	First Aid	Spoken Language (1-basic 3-native)
Shamoon Qurashi	Leader	Expedition First Aid Training	English-3 Urdu-3 Punjabi-3
Edward Brial	Medical and Liaison Officer and Photography	Expedition First Aid Training	English-3 French-3 Spanish-2
Benedict Pfender	Bicycle Maintenance and Photography	Marlin Fieldwork/ Outdoor First Aid Training	English-3 German-3 French-1
Daniel Hyde	Bicycle Maintenance and Video	Marlin Fieldwork/ Outdoor First Aid Training	English-3
Chris Charles	Treasurer and Trainer	Marlin Fieldwork/ Outdoor First Aid Training	English-3 French-2

Emergency Services:

Emergency Contact Numbers:

Country	Police	Fire	Medical
France	112	112	112
Spain	112	112	112
Morocco (see below)	177	15	15
Western Sahara (see below)	N/A	N/A	150
Mauritania see below)	117	118	N/A
Senegal (see below)	800-00-20-20 800-00-17-00 (221)33 860-3810	N/A	N/A

Hospitals and private medical facilities:

A detailed list of all hospitals can be found in all the separate incident response sections for the respective countries that we will be travelling through.

General Incident Response:

If an incident occurs injuring any of the team the following hierarchy will be enforced so as one member of the team controls the situation and administers/determines the first aid required. It will also ensure that situation can be analysed and actions taken in the least amount of time.

- Edward Brial
- Shamoon Qurashi
- Chris Charles
- Benedict Pfender
- Daniel Hyde

Telephone Numbers:

(For emergency see Emergency contact Numbers)

Imperial Sat Phone:	(subject to change)
Imperial Insurance	+44 (0) 20 7173 7797
Imperial College Security:	+44 207 594 9550
British Embassy in Morocco:	+212 537 63 33 33
Mr Sid' Ahmed Ould Abeidna:	Tel: +222 525 8331
(British Honorary Consulate)	Mob: +222 630 1217/ +33 6800 19567
British Embassy in Senegal:	+221 33 823 7392/ +221 33 823 9971

Other emergency numbers can be found in the relevant country's incident response documents

Safety Plan – Road/Heat Stroke incident response

Car crash:

STEP 1: INITIAL RESPONSE

- Are you safe?
- Think carefully: assess the situation, what you want to achieve, your immediate assets and limitations.
- **Take down the driver's number plate.**
- **Are the vehicles still on / (motorbikes & mopeds may be revving so use emergency stop next to throttle if it is safe to approach.**
 - Is the casualty in immediate danger (e.g. on the road, risk of further injury)?
- **Do members of the party need to warn and direct passing traffic.**

STEP 2: Casualty Analysis

- You have assessed the situation; formulate a plan and act upon it.
- Discuss the plan with the casualty, but consider the extent of their injuries and factor this into how much they input.
- If separated from the other team members, consider whether you need them and their assets.
- Should you be unable to reach them, wait as close to the incident location until found. And try and reach team members on mobile phones.
- Continue to assess the ability to get to your destination (ideally close to the road where you were last seen by your team members).

STEP 3: MEDICAL ASSISTANCE AND EVACUATION

- Document the following:
 - Name and satellite phone number
 - Position – latitude and longitude
 - Accident/illness description
 - **Relevant Vehicle Details (number plates and vehicle description)**
 - **Obtain Driver details (Name, Address, Phone, Email)**
- Clinical description:
 - Conscious level – AVPU.
 - Airway.
 - Breathing – respiration rate, depth.
 - Circulation – bleeding, skin colour, pulse.
 - Disability - obvious injuries.
 - Treatment given (e.g. splinting).
 - Next course of action.
 - Assistance required.
 - Additional information (e.g. weather, other relevant information).
- Establish casualty priority:
 - Priority 1 Immediate evacuation, if possible from accident area.
 - Priority 2 Evacuation needed soon.
 - Priority 3 Evacuation needed, but not life threatening.
 - Priority 4 Evacuation not needed, advice required.
 - Should evacuation be required, follow the evacuation procedure (for the relevant country)

STEP 4: POST INCIDENT

- Each team member will write a personal report.

- As a group, document the list of decisions made with approximate times and locations. Use the list to discuss how you felt prior to, during and after the incident.
- Complete Imperial College incident reporting form.
- If required, speak to UK contact to discuss incident.
- Any major incident will involve a full debriefing on return to London. Debrief to be led by Expedition Leader.

Heat stroke:

Symptoms:

- Severe heat stroke, body temperature of 104 F (40 C) or higher,
- Nausea,
- Vomiting,
- Fatigue,
- Weakness,
- Headache,
- Muscle cramps and aches, and
- Dizziness,
- high body temperature,
- The absence of sweating, with hot red or flushed dry skin,
- Rapid pulse,
- Difficulty breathing,
- Strange behavior,
- Hallucinations,
- Confusion,
- Agitation,
- Disorientation,
- seizure, and/or
- coma

Response:

STEP 1: INITIAL RESPONSE

- Are you safe?
- Think carefully: assess the situation, what you want to achieve, your immediate assets and limitations.
- Get the victim to a shady area, remove clothing, apply cool or tepid water to the skin fan the victim to promote sweating and evaporation, and place ice(carry in first aid kit) packs under armpits and groin.
- If the person is able to drink liquids, have them drink cool water or other cool beverages that do not contain alcohol or caffeine.
- Monitor body temperature with a thermometer(carry in first aid kit) and continue cooling efforts until the body temperature drops to 101 to 102 F (38.3 to 38.8 C).

STEP 2: Casualty Analysis

- You have assessed the situation; formulate a plan and act upon it.
- If separated from the other team members, consider whether you need them and their assets.
- Keeping trying to lower victims body temperature.

STEP 3: MEDICAL ASSISTANCE AND EVACUATION

- Document the following:

- Name and satellite phone number
- Position – latitude and longitude
- Accident/illness description
- Establish casualty priority:
 - Priority 1 Immediate evacuation, if possible from incident area.

STEP 4: POST INCIDENT

- Each team member will write a personal report.
- As a group, document the list of decisions made with approximate times and locations. Use the list to discuss how you felt prior to, during and after the incident.
- Complete Imperial College incident reporting form.
- If required, speak to UK contact to discuss incident.
- Any major incident will involve a full debriefing on return to London. Debrief to be led by Expedition Leader

Safety Plan – Europe Inc/Evac Plan

EUROPE ROAD AWARENESS:

Follow the incident response procedure if one of the group members becomes a casualty

- It is imperative to keep road safety in these situations, Europe has much more traffic than Africa and so the risk of an accident on the road is increased.
- The emergency services in Europe are reliable; all injuries and casualties should be transported to hospital the emergency services of each country respectively.

The casualty should be evacuated with one other team member, who will be carrying a phone.

The rest of the team should proceed to the next town by any means necessary (ie. bus, train etc.) and stay there until an evaluation has been made on the situation by all able team members.

For situations not involving a casualty, the evac.plan for Europe is to head to the nearest big city or town by any means necessary and evaluate the situation from there. It is important to remember that abandonment of equipment is far less important than safety of the team.

Incident Response:

STEP 1: INITIAL RESPONSE

- Are you safe?
- Think carefully: assess the situation, what you want to achieve, your immediate assets and limitations.
- Is the casualty in immediate danger (e.g. on the road, risk of further injury)?

STEP 2: Casualty Analysis

- You have assessed the situation; formulate a plan and act upon it.
- Discuss the plan with the casualty, but consider the extent of their injuries and factor this into how much they input.
- If separated from the other team members, consider whether you need them and their assets.
- Should you be unable to reach them, wait as close to the incident location until found. And try and reach team members on mobile phones.
- Continue to assess the ability to get to your destination (ideally close to the road where you were last seen by your team members).

STEP 3: MEDICAL ASSISTANCE AND EVACUATION

- Document the following:
 - Name and satellite phone number
 - Position – latitude and longitude
 - Accident/illness description
- Clinical description:
 - Conscious level – AVPU.
 - Airway.
 - Breathing – respiration rate, depth.
 - Circulation – bleeding, skin colour, pulse.
 - Disability - obvious injuries.
 - Treatment given (e.g. splinting).
 - Next course of action.
 - Assistance required.
 - Additional information (e.g. weather, other relevant information).
- Establish casualty priority:
 - Priority 1 Immediate evacuation, if possible from accident area.
 - Priority 2 Evacuation needed soon.
 - Priority 3 Evacuation needed, but not life threatening.
 - Priority 4 Evacuation not needed, advice required.

- Should evacuation be required, follow the evacuation procedure

STEP 4: POST INCIDENT

- Each team member will write a personal report.
- As a group, document the list of decisions made with approximate times and locations. Use the list to discuss how you felt prior to, during and after the incident.
- Complete Imperial College incident reporting form.
- If required, speak to UK contact to discuss incident.
- Any major incident will involve a full debriefing on return to London. Debrief to be led by Expedition Leader.

Evacuation Plan (Europe):

(if possible two members should carry out steps 1&2 simultaneously, with 2A and 2B carried out separately)

Step 1: Medical Advice

- If medical advice is needed we will contact a UK based Doctor.
 - NHS Direct: +44 0845 4647

Step 2A: Local Contact

- Get in touch with local contact

France:

- Anne Camo:
 - +33613762081
- Pierre Camo:
 - +33616092803
- Magali Meyer:
 - +33143343722

Spain:

- Coral:
 - +447902116795
- Maria Nunez Garcia:
 - +447904287657
- Brief contact of the situation and reason for evacuation, including:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
 - Action being taken (if immediate first aid response is needed)
- Instruct local contact to keep us informed of actions being taken
- If unable to contact local contact proceed to step 3

Step 2B: Emergency Services

- Call 112

Step 3: Insurance Company (Imperial Insurance)

- Call +44 (0) 20 7173 7797
- Brief Insurance company of the situation and reason for evacuation, including:
 - Assessment & diagnosis of casualty

- Whether medical advice has been obtained
- Provide exact location (long/lat)
- Before taking action, obtain authorisation.
- If unable to contact insurance company proceed to step 4

Step 4: Imperial College

- Get in touch with Imperial College Security and leave a message:
 - 020 7594 9550 (recent)
 - 020 7594 8910
 - 020 7589 1000 (SK campus)
- Leave the following information:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
 - Action being taken (if immediate first aid response is needed)
 - Name, Sat number and primary Mobile Number (to return contact)
- If insurance still can't be reached, provide insurance details and instruct home contact to contact and brief insurance company.
- Instruct home contact to keep us informed of actions being taken.

Step 5: In case of Satellite/Mobile Phone failure

- Note location of casualty
- Send a two man team to find the nearest phone (road stop or passing car) to get help, whilst the others tend to the casualty.
- Once a phone has been obtained restart from Step 1

Step 6: Await instructions

- Await instructions.
- Continue to administer first aid if necessary
- Prepare casualty for efficient pass over to emergency services.

Safety Plan – Morocco Inc/Evac Plan

STEP 1: INITIAL RESPONSE

- Are you safe?
- Think carefully: assess the situation, what you want to achieve, your immediate assets and limitations.
- Is the casualty in immediate danger (e.g. on the road, risk of further injury)?

STEP 2: Casualty Analysis

- You have assessed the situation; formulate a plan and act upon it.
- Discuss the plan with the casualty, but consider the extent of their injuries and factor this into how much they input.
- If separated from the other team members, consider whether you need them and their assets.
- Should you be unable to reach them, wait as close to the incident location until found. And try and reach team members on mobile phones.
- Continue to assess the ability to get to your destination (ideally close to the road where you were last seen by your team members).

STEP 3: MEDICAL ASSISTANCE AND EVACUATION

- Document the following:
 - Name and satellite phone number
 - Position – latitude and longitude
 - Accident/illness description
- Clinical description:
 - Conscious level – AVPU.
 - Airway.
 - Breathing – respiration rate, depth.
 - Circulation – bleeding, skin colour, pulse.
 - Disability - obvious injuries.
 - Treatment given (e.g. splinting).
 - Next course of action.
 - Assistance required.
 - Additional information (e.g. weather, other relevant information).
- Establish casualty priority:
 - Priority 1 Immediate evacuation, if possible from accident area.
 - Priority 2 Evacuation needed soon.
 - Priority 3 Evacuation needed, but not life threatening.
 - Priority 4 Evacuation not needed, advice required.
 - Should evacuation be required, follow the evacuation procedure

STEP 4: POST INCIDENT

- Each team member will write a personal report.
- As a group, document the list of decisions made with approximate times and locations. Use the list to discuss how you felt prior to, during and after the incident.
- Complete Imperial College incident reporting form.
- If required, speak to UK contact to discuss incident.
- Any major incident will involve a full debriefing on return to London. Debrief to be led by Expedition Leader.

Evacuation Plan (Morocco):

(if possible two members should carry out steps 1&2 simultaneously, with 2A and 2B carried out separately)

Step 1: Medical Advice

- If medical advice is needed we will contact a UK based Doctor.
 - NHS Direct: +44 0845 4647

Step 2A: Local Contact

- Get in touch with local contact:
- Marc(Agadir): 00212673794362
- Martine(Agadir): 00212610137944
- Brief contact of the situation and reason for evacuation, including:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
 - Action being taken (if immediate first aid response is needed)
- Instruct local contact to keep us informed of actions being taken
- If unable to contact local contact proceed to step 3

Step 2B : Emergency Services

- **Call Medical/Fire on 15**
- **Call the Gen d'arme on 117**

Then call the nearest hospital:

Hospitals:

Rabat:

- Isaaf Mondial Assistance
 - 6, rue Moulay Slimane, appt. n°1 RABAT
 - Téléphone : 05 37 20 20 20
- Isaaf Mondial Assistance
 - cité Al Manar, av. Hassan II imm A mag. 3 RABAT
 - Téléphone : 05 37 20 79 57
- Rabat Secours Médical
 - 27, rue Dayet Erroumi, n°4 Agdal RABAT
 - Téléphone : 05 37 77 73 33

Casablanca:

- S.o.s. Médecins Casablanca
 - lotiss. Civim , lot.131, z.i. rte de l'Aéroport , Sidi Maârouf CASABLANCA
 - 05 22 44 44 44
- Samu (Service Privé d'Assistance Médicale Urgente)
 - 5, rue Galien, résid. Soumaya CASABLANCA
 - 05 22 25 25 25
- Semu s.a.
 - route d' Azemmour ang. Sidi Abderrahman CASABLANCA
 - 05 22 90 50 50
- Prudent Sécurité Maroc

- 207, bd Mohamed Zerktouni, 6^oét.CASABLANCA
- 05 22 94 67 20
- Samur
 - Cité Plateau, c. com. Nadia imm. III rdc n°4 CASABLANCA
- Allo Tabib
 - 05 22 98 16 16
- Allo Ambulance
 - 05 22 98 16 16

Marrakesh:

- S.O.S. Médecins :
 - (+/- 400Dhs la consultation)
 - Tel : +212 5 24 40 40 40
- SAMU : (au Guéliz)
 - Rue Ibn Habouse angle Av Mohamed V - Marrakech
 - Tel : +212 5 24 43 30 30
- SOS Accident :
 - Tel : +212 5 24 40 14 01
- Police touristique :
 - Tel : +212 5 24 38 46 01

Agadir:

- S.O.S AMU
 - N°1 Bloc 12 Rue de Marrakech Q.I , Boite Postale 5110
 - Téléphone : + (212) 05 48.82.88.88
 - Fax : + (212) 05 48.82.71.70
- S.O.S Urgence
 - Hôpital Hassan II
 - Tél: 05 28 80 14 85 / 05 28 84 19 77
- Union Africaine Assistance
 - Tél: 05 28 84 50 50
- Pharmacies De Garde
 - Municipalité, Agadir
 - Tél: 0528 84 50 50
- SOS AMU (Médecins et ambulances)
 - Tel: 05.28.82.88.88

Step 3: Insurance Company (Imperial Insurance)

- Call +44 (0) 20 7173 7797
- Brief Insurance company of the situation and reason for evacuation, including:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained

- Provide exact location (long/lat)
- Before taking action, obtain authorisation.
- If unable to contact insurance company proceed to step

Step 4: Imperial College

- Get in touch with Imperial College Security and leave a message:
 - 020 7594 9550 (recent)
 - 020 7594 8910
 - 020 7589 1000 (SK campus)
- Leave the following information:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
 - Action being taken (if immediate first aid response is needed)
 - Name, Sat number and primary Mobile Number (to return contact)
- If insurance still can't be reached, provide insurance details and instruct home contact to contact and brief insurance company.
- Instruct home contact to keep us informed of actions being taken.

Step 5: In case of Satellite/Mobile Phone failure

- Note location of casualty
- Send a two man team to find the nearest phone (road stop or passing car) to get help, whilst the others tend to the casualty.
- Once a phone has been obtained restart from Step 1

Step 6: Await instructions

- Await instructions.
- Continue to administer first aid if necessary
- Prepare casualty for efficient pass over to emergency services.

Safety Plan – Western Sahara Inc/Evac Plan

STEP 1: INITIAL RESPONSE

- Are you safe?
- Think carefully: assess the situation, what you want to achieve, your immediate assets and limitations.
- Is the casualty in immediate danger (e.g. on the road, risk of further injury)?

STEP 2: Casualty Analysis

- You have assessed the situation; formulate a plan and act upon it.
- Discuss the plan with the casualty, but consider the extent of their injuries and factor this into how much they input.
- If separated from the other team members, consider whether you need them and their assets.
- Should you be unable to reach them, wait as close to the incident location until found. And try and reach team members on mobile phones.
- Continue to assess the ability to get to your destination (ideally close to the road where you were last seen by your team members).

STEP 3: MEDICAL ASSISTANCE AND EVACUATION

- Document the following:
 - Name and satellite phone number
 - Position – latitude and longitude
 - Accident/illness description
- Clinical description:
 - Conscious level – AVPU.
 - Airway.
 - Breathing – respiration rate, depth.
 - Circulation – bleeding, skin colour, pulse.
 - Disability - obvious injuries.
 - Treatment given (e.g. splinting).
 - Next course of action.
 - Assistance required.
 - Additional information (e.g. weather, other relevant information).
- Establish casualty priority:
 - Priority 1 Immediate evacuation, if possible from accident area.
 - Priority 2 Evacuation needed soon.
 - Priority 3 Evacuation needed, but not life threatening.
 - Priority 4 Evacuation not needed, advice required.
 - Should evacuation be required, follow the evacuation procedure (for the relevant country).

STEP 4: POST INCIDENT

- Each team member will write a personal report.
- As a group, document the list of decisions made with approximate times and locations. Use the list to discuss how you felt prior to, during and after the incident.
- Complete Imperial College incident reporting form.
- If required, speak to UK contact to discuss incident.
- Any major incident will involve a full debriefing on return to London. Debrief to be led by Expedition Leader.

Evacuation Plan (Western Sahara):

(if possible two members should carry out steps 1&2 simultaneously, with 2A and 2B carried out separately)

Step 1: Medical Advice

- If medical advice is needed we will contact a UK based Doctor.
 - NHS Direct: +44 0845 4647

Step 2A: Local Contact (Still to be secured/ use Moroccan Contact)

- Get in touch with local contact
- Marc(Agadir): 00212673794362
- Martine(Agadir): 00212610137944
- Brief contact of the situation and reason for evacuation, including:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
 - Action being taken (if immediate first aid response is needed)
- Instruct local contact to keep us informed of actions being taken
- If unable to contact local contact proceed to step 3

Step 2B : Emergency Services

- **Call 150**

Then call the nearest hospital:

Hospitals:

HOSPITAL MOULAY HASSAN BEN EL MEHDI /LAAYOUNE

Tel : 05 48 89 36 50 / 89 33 13

HOSPITAL BOUJDOUR / BOUJDOUR

Tel : 05 48 89 61 62

The following hospitals only have listed addresses and no listed numbers

El aaiun

hassan 2 special hospital
Centre de Santé Al Aouda
3eme hopital

Laayoune plage

hopital al marsa

Boujdour Province

hopital
hopital militar

Dakhla

hopital al massira
hopital hassan 2
El Dakhla Central Hospital Mout
El Dakhla, El Wadi El Gadid

Step 3: Insurance Company (Imperial Insurance)

- Call +44 (0) 20 7173 7797

- Brief Insurance company of the situation and reason for evacuation, including:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
- Before taking action, obtain authorisation.
- If unable to contact insurance company proceed to step

Step 4: Imperial College

- Get in touch with Imperial College Security and leave a message:
 - 020 7594 9550 (recent)
 - 020 7594 8910
 - 020 7589 1000 (SK campus)
- Leave the following information:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
 - Action being taken (if immediate first aid response is needed)
 - Name, Sat number and primary Mobile Number (to return contact)
- If insurance still can't be reached, provide insurance details and instruct home contact to contact and brief insurance company.
- Instruct home contact to keep us informed of actions being taken.

Step 5: In case of Satellite/Mobile Phone failure

- Note location of casualty
- Send a two man team to find the nearest phone (road stop or passing car) to get help, whilst the others tend to the casualty.
- Once a phone has been obtained restart from Step 1

Step 6: Await instructions

- Await instructions.
- Continue to administer first aid if necessary
- Prepare casualty for efficient pass over to emergency services.

Safety Plan – Mauritania Inc/Evac Plan

STEP 1: INITIAL RESPONSE

- Are you safe?
- Think carefully: assess the situation, what you want to achieve, your immediate assets and limitations.
- Is the casualty in immediate danger (e.g. on the road, risk of further injury)?

STEP 2: Casualty Analysis

- You have assessed the situation; formulate a plan and act upon it.
- Discuss the plan with the casualty, but consider the extent of their injuries and factor this into how much they input.
- If separated from the other team members, consider whether you need them and their assets.
- Should you be unable to reach them, wait as close to the incident location until found. And try and reach team members on mobile phones.
- Continue to assess the ability to get to your destination (ideally close to the road where you were last seen by your team members).

STEP 3: MEDICAL ASSISTANCE AND EVACUATION

- Document the following:
 - Name and satellite phone number
 - Position – latitude and longitude
 - Accident/illness description
- Clinical description:
 - Conscious level – AVPU.
 - Airway.
 - Breathing – respiration rate, depth.
 - Circulation – bleeding, skin colour, pulse.
 - Disability - obvious injuries.
 - Treatment given (e.g. splinting).
 - Next course of action.
 - Assistance required.
 - Additional information (e.g. weather, other relevant information).
- Establish casualty priority:
 - Priority 1 Immediate evacuation, if possible from accident area.
 - Priority 2 Evacuation needed soon.
 - Priority 3 Evacuation needed, but not life threatening.
 - Priority 4 Evacuation not needed, advice required.
 - Should evacuation be required, follow the evacuation procedure (for the relevant country)

STEP 4: POST INCIDENT

- Each team member will write a personal report.
- As a group, document the list of decisions made with approximate times and locations. Use the list to discuss how you felt prior to, during and after the incident.
- Complete Imperial College incident reporting form.
- If required, speak to UK contact to discuss incident.

- Any major incident will involve a full debriefing on return to London. Debrief to be led by Expedition Leader.

Evacuation Plan (Mauritania):

(if possible two members should carry out steps 1&2 simultaneously, with 2A and 2B carried out separately)

Step 1: Medical Advice

- If medical advice is needed we will contact a UK based Doctor.
 - NHS Direct: +44 0845 4647

Step 2A: Local Contact

- Get in touch with local contact:
- Mr Sid' Ahmed Ould Abeidna: Tel: +222 525 8331
(British Honorary Consulate) Mob: +222 630 1217/ +33 6800 19567
- Brief contact of the situation and reason for evacuation, including:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
 - Action being taken (if immediate first aid response is needed)
- Instruct local contact to keep us informed of actions being taken
- **If unable to contact local contact proceed to step 3**

Step 2B : Emergency Services

- **Call the Gen d'arme on 117 (fire - 118)**

Then call the nearest hospital:

Hospitals:

- Centre Hospitalier National
 - Nouakchott, Mauritania
 - tél. 222-525 21 35
 - Gynécologie, médecine générale, ORL, gastro-entérologie, chirurgie, pédiatrie, cardiologie, ophtalmologie, urologie, stomatologie et hospitalisation.
- Centre Neuro- psychiatrique
 - Sebkhah, Nouakchott, Mauritania
 - télé. 222-525 57 78
- Hôpital Sabah
 - Nouakchott, Mauritania
 - tél. 222-525 15 28
 - Pneumo-phtisiologie, service pour la lèpre et la tuberculose,
 - radiologie, laboratoires d'analyses médicales.
- Hôpital militaire
 - Nouakchott, Mauritania
 - Tel: 222-525 70 15.
- Hopital National
 - B.P. 612
 - Nouakchott

- Tel: 222 525 85 13
- Hopital Militaire
 - Nouakchott
 - Nouakchott, Mauritania
 - Tel: 222 525 70 15

Clinics:

- CLINIQUE CHIVA
 - BP 803 Nouakchott, tevragh-Zeina
 - tél. 222 525 80 80
- CLINIQUE AL QODS
 - Chirurgie, urologie, médecine générale, gynécologie.
 - tél. 222-525 82 61
- CLINIQUE AMITIE
 - Gynécologie, médecine générale.
 - tél. 222- 525 14 94
- Clinique De L'amitie
 - B.P. 2241
 - Nouakchott, Mauritania
 - Tel: 222 525 28 05
- CLINIQUE CHIVA
 - Gynécologie, médecine générale, pédiatrie, rhumatologie,
 - chirurgie, analyses médicales, échographie, neurologie.
 - Tél: 222-525 13 25
- CLINIQUE ESSALAMA
 - médecine générale, urologie, chirurgie, réanimation,
 - neurologie gynécologie, gastro-entérologie
 - B.P. 1135
 - Nouakchott, Mauritania
 - Tel: 222 525 57 60
- CLINIQUE PHTISIOLOGIQUE
 - pneumologie
 - tél. 222-525 24 32
- CLINIQUE NAJJAR
 - gynécologie, obstétrique
 - tel: 222-525 4160, tel/fax: 222-525 4942
- Clinique Adama Diany
 - B.P. 3829
 - Nouakchott, Mauritania
 - Tel: 222 525 59 34
- Clinique Kissi

- B.P. 1191
- Nouakchott, Mauritania
- Tel: 222 525 65 14

Pharmacy

- PHARMACIE ACCUEIL
 - TEL: 222-525 79 06
- PHARMACIE CENTRALE
 - T&EACUTE;L : 222-525 12 36
- PHARMACIE LE MINA
 - T&EACUTE;L: 222-525 05 77
- PHARMACIE ETAIF
 - T&EACUTE;L: 222-525 58 49
- PHARMACIE IDEAL
 - T&EACUTE;L: 222-525 53 69
- PHARMACIE MARHABA (MERCURE)
 - T&EACUTE;L: 222-525 10 63

Step 3: Insurance Company (Imperial Insurance)

- Call +44 (0) 20 7173 7797
- Brief Insurance company of the situation and reason for evacuation, including:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
- Before taking action, obtain authorisation.
- If unable to contact insurance company proceed to step

Step 4: Imperial College

- Get in touch with Imperial College Security and leave a message:
 - 020 7594 9550 (recent)
 - 020 7594 8910
 - 020 7589 1000 (SK campus)
- Leave the following information:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
 - Action being taken (if immediate first aid response is needed)
 - Name, Sat number and primary Mobile Number (to return contact)
- If insurance still can't be reached, provide insurance details and instruct home contact to contact and brief insurance company.
- Instruct home contact to keep us informed of actions being taken.

Step 5: In case of Satellite/Mobile Phone failure

- Note location of casualty
- Send a two man team to find the nearest phone (road stop or passing car) to get help, whilst the others tend to the casualty.
- Once a phone has been obtained restart from Step 1

Step 6: Await instructions

- Await instructions.
- Continue to administer first aid if necessary
- Prepare casualty for efficient pass over to emergency services.

Safety Plan – Senegal Inc/Evac Plan

STEP 1: INITIAL RESPONSE

- Are you safe?
- Think carefully: assess the situation, what you want to achieve, your immediate assets and limitations.
- Is the casualty in immediate danger (e.g. on the road, risk of further injury)?

STEP 2: Casualty Analysis

- You have assessed the situation; formulate a plan and act upon it.
- Discuss the plan with the casualty, but consider the extent of their injuries and factor this into how much they input.
- If separated from the other team members, consider whether you need them and their assets.
- Should you be unable to reach them, wait as close to the incident location until found. And try and reach team members on mobile phones.
- Continue to assess the ability to get to your destination (ideally close to the road where you were last seen by your team members).

STEP 3: MEDICAL ASSISTANCE AND EVACUATION

- Document the following:
 - Name and satellite phone number
 - Position – latitude and longitude
 - Accident/illness description
- Clinical description:
 - Conscious level – AVPU.
 - Airway.
 - Breathing – respiration rate, depth.
 - Circulation – bleeding, skin colour, pulse.
 - Disability - obvious injuries.
 - Treatment given (e.g. splinting).
 - Next course of action.
 - Assistance required.
 - Additional information (e.g. weather, other relevant information).
- Establish casualty priority:
 - Priority 1 Immediate evacuation, if possible from accident area.
 - Priority 2 Evacuation needed soon.
 - Priority 3 Evacuation needed, but not life threatening.
 - Priority 4 Evacuation not needed, advice required.
 - Should evacuation be required, follow the evacuation procedure

STEP 4: POST INCIDENT

- Each team member will write a personal report.
- As a group, document the list of decisions made with approximate times and locations. Use the list to discuss how you felt prior to, during and after the incident.
- Complete Imperial College incident reporting form.
- If required, speak to UK contact to discuss incident.
- Any major incident will involve a full debriefing on return to London. Debrief to be led by Expedition Leader

Evacuation Plan (Senegal):

(if possible two members should carry out steps 1&2 simultaneously, with 2A and 2B carried out separately)

Step 1: Medical Advice

- If medical advice is needed we will contact a UK based Doctor.
 - NHS Direct: +44 0845 4647

Step 2A: Local Contact(TBC)

- Get in touch with local contact
- Brief contact of the situation and reason for evacuation, including:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
 - Action being taken (if immediate first aid response is needed)
- Instruct local contact to keep us informed of actions being taken
- If unable to contact local contact proceed to step 3

Step 2B : Emergency Services

- 800-00-20-20; 800-00-17-00;(221)33 860-3810.

Then call the nearest hospital:

Hospitals:

Hopital de Saint Louis
Boulevard Abdoulaye Mar Diop,
Saint Louis
Tél: +221 938 2400
Fax: +221 961 1023
Email: hopsl@sentoo.sn
Website: www.hopstlouis.com

Clinique Casahous
5 rue de Thiong
B.P. 2102
Dakar
+ 221 821 30 30

Clinique Pasteur
Avenue Carnot
Dakar
+221 821 2434

Clinique de l'Amitie
N°525-527
HLM Grand Yoff
BP 15282
Dakar
+ 221 33 869 6490

Clinique des Mamelles
Route de N' Dor
B.P. 5769
Dakar
+ 221 869 13 13

Clinique du Cap
Avenue Pasteur

B.P. 583
Dakar
+ 221 889 02 02

Clinique de la Madelaine
18 Avenue de Jambaars
B.P. 3500
Dakar
BP3500
+ 221 218 074
+ 221 821 94 70

Hopital Principal de Dakar
1,Avenue Nelson Mandela
B.P. 3006
Dakar
+ 221 839 50 50

Imagerie Modern du Senegal
Dakar Fan B.P 5027
Dakar
Senegal
+ 221 33 859 12 59
+ 221 33 859 12 62

Step 3: Insurance Company (Imperial Insurance)

- Call +44 (0) 20 7173 7797
- Brief Insurance company of the situation and reason for evacuation, including:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
- Before taking action, obtain authorisation.
- If unable to contact insurance company proceed to step

Step 4: Imperial College

- Get in touch with Imperial College Security and leave a message:
 - 020 7594 9550 (recent)
 - 020 7594 8910
 - 020 7589 1000 (SK campus)
- Leave the following information:
 - Assessment & diagnosis of casualty
 - Whether medical advice has been obtained
 - Provide exact location (long/lat)
 - Action being taken (if immediate first aid response is needed)
 - Name, Sat number and primary Mobile Number (to return contact)
- If insurance still can't be reached, provide insurance details and instruct home contact to contact and brief insurance company.
- Instruct home contact to keep us informed of actions being taken.

Step 5: In case of Satellite/Mobile Phone failure

- Note location of casualty
- Send a two man team to find the nearest phone (road stop or passing car) to get help, whilst the others tend to the casualty.
- Once a phone has been obtained restart from Step 1

Step 6: Await instructions

- Await instructions.
- Continue to administer first aid if necessary
- Prepare casualty for efficient pass over to emergency services.

Acknowledgements

We would like to thank everyone below for making this expedition possible:

Imperial College Exploration Board

Genesis Bikes

Madison Distribution

Klymit

Exposure

MSR

LifeVenture

LifeSystems

Brooks Saddles

Imperial College London

MADISON:00



BROOKS
ENGLAND

