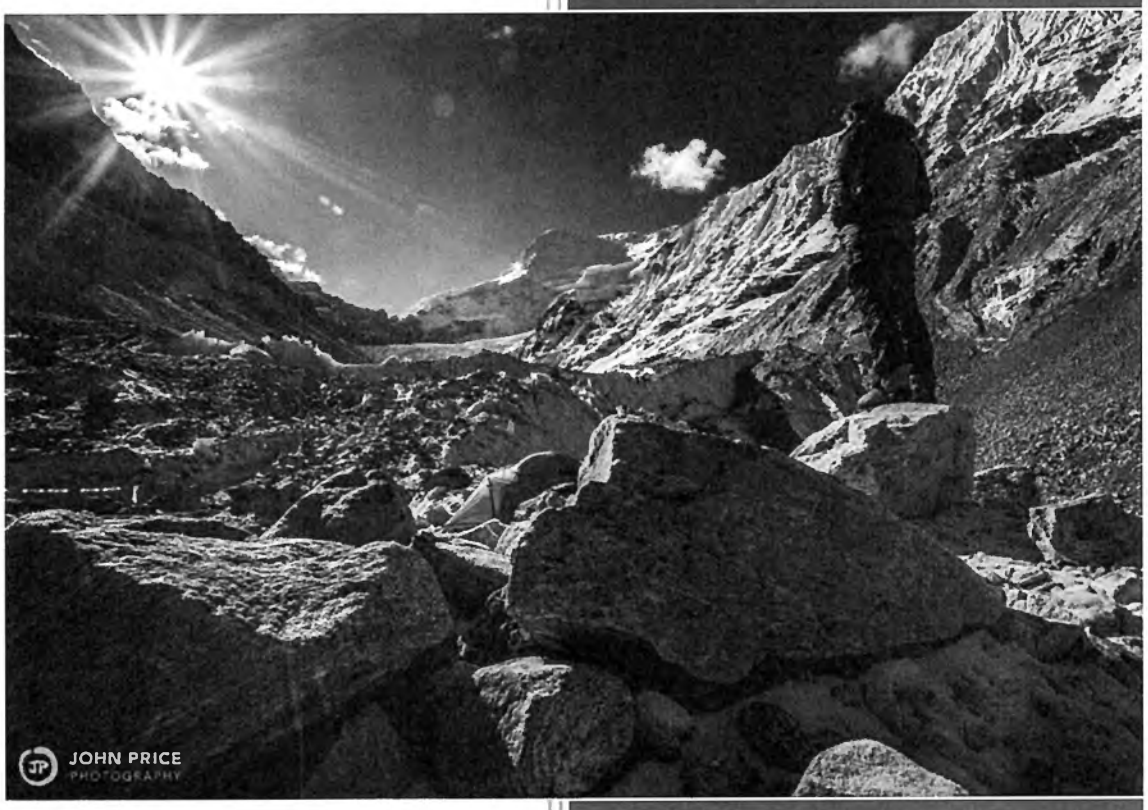
2014

Anidesha Chuli / White Wave Expedition Report



Paul Hersey, Shelley Hersey, John Price

Backyard and Beyond

Expedition to Anidesha Chuli/White Wave, 6,900m Kangchenjunga Himalaya, Nepal

April-May 2014

EXPEDITION REPORT

Paul Hersey, Shelley Hersey, John Price

Summary

In April and May 2014, two New Zealand mountaineers – Paul and Shelley Hersey – and an Australian mountaineer – John Price – attempted the first ascent of Anidesha Chuli (6,900m) aka 'White Wave,' located in North-eastern Nepal. The team relied heavily on information gathered during an expedition by another New Zealand team a year earlier (and much of the generic information in this report has been garnered from the 2013 team's report).

Unfortunately, the 2014 expedition did not result in a summit. Sickness on the long trek to base camp as well as one expedition member getting HACE during acclimatising severely hampered opportunities. But ultimately it was the combination of what was found to be an unseasonal high snowfall, a complicated and very broken access through the icefall, the constant threat of avalanches and continuing bad weather that stopped the team from achieving its objective.

While the 2013 team reported finding mostly favourable climbing conditions, the 2014 team did not, raising the question of the feasibility of this route pre monsoon given the threat from lee side snow conditions and unsettled weather, and post monsoon given the complicated and broken nature of the icefall.

Contents

Expedition Aim and Background

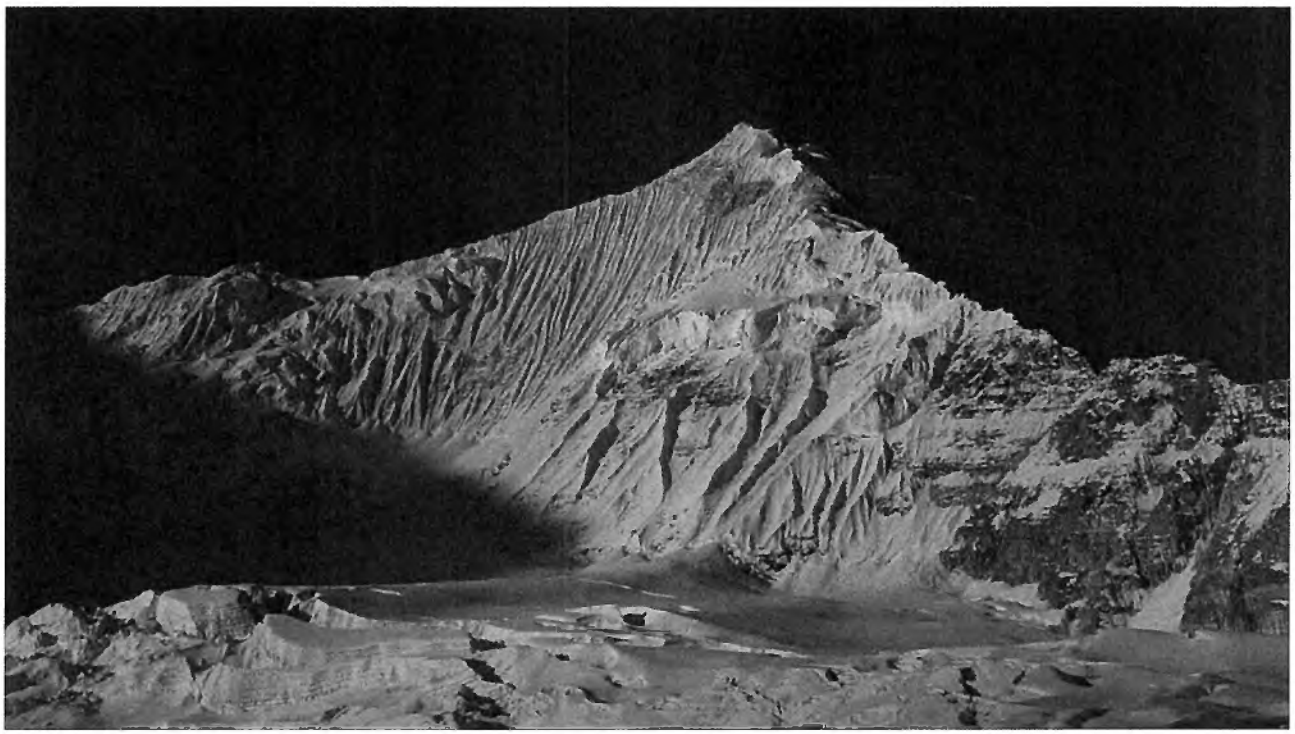
Aim

The primary aim of the expedition was to make the first ascent of a beautiful mountain named Anidesha Chuli/White Wave (6,900m) in the Kangchenjunga Himalaya of North-east Nepal. This is a remote part of the Himalaya with a strong New Zealand history. Our team of three planned to climb alpine style – being lightweight, flexible and low-impact. After a period of acclimatising and route finding, the actual ascent from base camp and return (around 2000 vertical metres) was planned to take 6-8 days.

If successful, this would be the highest unclimbed mountain ascended by a New Zealand led team for a number of years, and possibly the highest unclimbed mountain ever by a Kiwi woman. At 28, John could also possibly be the youngest Australian to be successful on an unclimbed mountain of this altitude.

A strong New Zealand team, led by Rob Frost, attempted Anidesha Chuli in 2013. Initially part of that team, Paul and Shelley were forced to withdraw after losing their home during the Canterbury earthquakes. During the 2013 attempt, one team member fell and was injured while on lead just below the East Ridge. He was evacuated from the mountain, and later the rest of the team abandoned the climb. Rob and the other team members have been very supportive of Shelley, Paul and John's attempt, offering invaluable information and advice to help increase the chance of success on this expedition.

The 2014 Anidesha Chuli Expedition was part of the ongoing *Backyard And Beyond* project started by Shelley and Paul, along with Jamie Vinton-Boot and Troy Mattingley, in 2010. The success of the team's 2012 Southern Alps transalpine expedition, and the documentary "One Fine Day On A Mountain", encouraged the team to consider a new challenge. One Fine Day On A Mountain won a Special Jury Award at the 2013 New Zealand Mountain Film Festival, and was warmly received by audiences around the country. After Jamie's recent tragic death, Shelley and Paul felt a heightened responsibility towards continuing the BAB project. They planned to also make a short documentary of this expedition.



The mountain

Anidesha Chuli is the highest point of the Anidesha Himal, the range separating the Ramtang Valley on the north from the Jannu/Kumbhakarna Valley on the south. The elevation of Anidesha Chuli varies on modern maps from 6,808m to 6,960m. The mountain has two summits – the north-east and south-west summits – which are approximately 400m apart, and maps are not clear about which is the highest. Photographs taken from the north-west indicate that the south-west summit is probably higher.

Anidesha Chuli was added to the Nepalese government's list of Expedition Peaks in 2002, and is also on their Unclimbed Peaks list.

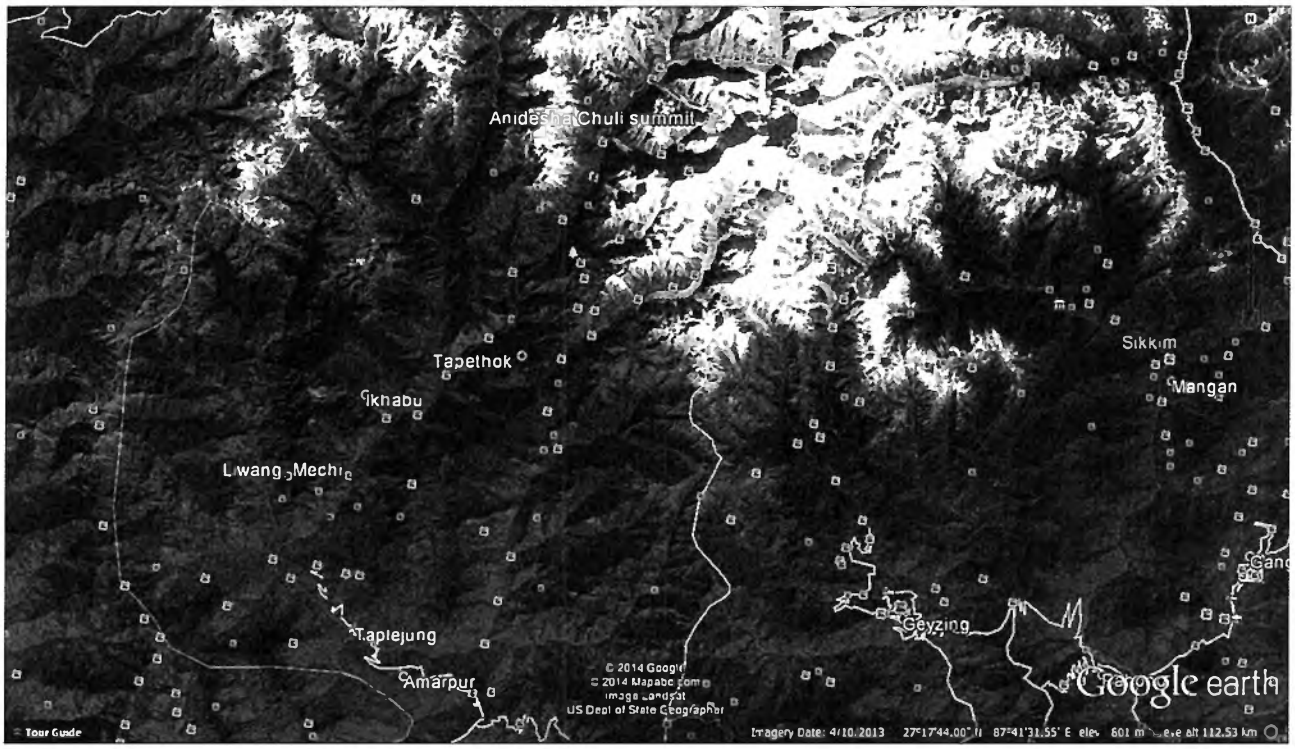
Destination area

Anidesha Chuli is located in the heart of the Kangchenjunga Himalaya, in the north-eastern corner of Nepal. This is a region of deep gorges, long approaches, heavy rainfall, and isolated villages. The region was opened to trekkers in 1988, and is currently a Restricted Area, which means foreigners require a guide or liaison officer to be given an entry permit. Access to the region is usually through the town of Taplejung (1,800m), which can be reached by air from Kathmandu, or via a fully-sealed road. Trekking approaches from Taplejung to the peaks surrounding Kangchenjunga typically take between 8 and 11 days.

New Zealand climbing expeditions in the area

The region is named after its highest peak, Kangchenjunga (8,586m), the world's third highest mountain, first climbed by a British team in May 1955. New Zealander Norman Hardie was deputy leader of the 1955 expedition and one of four members to summit.

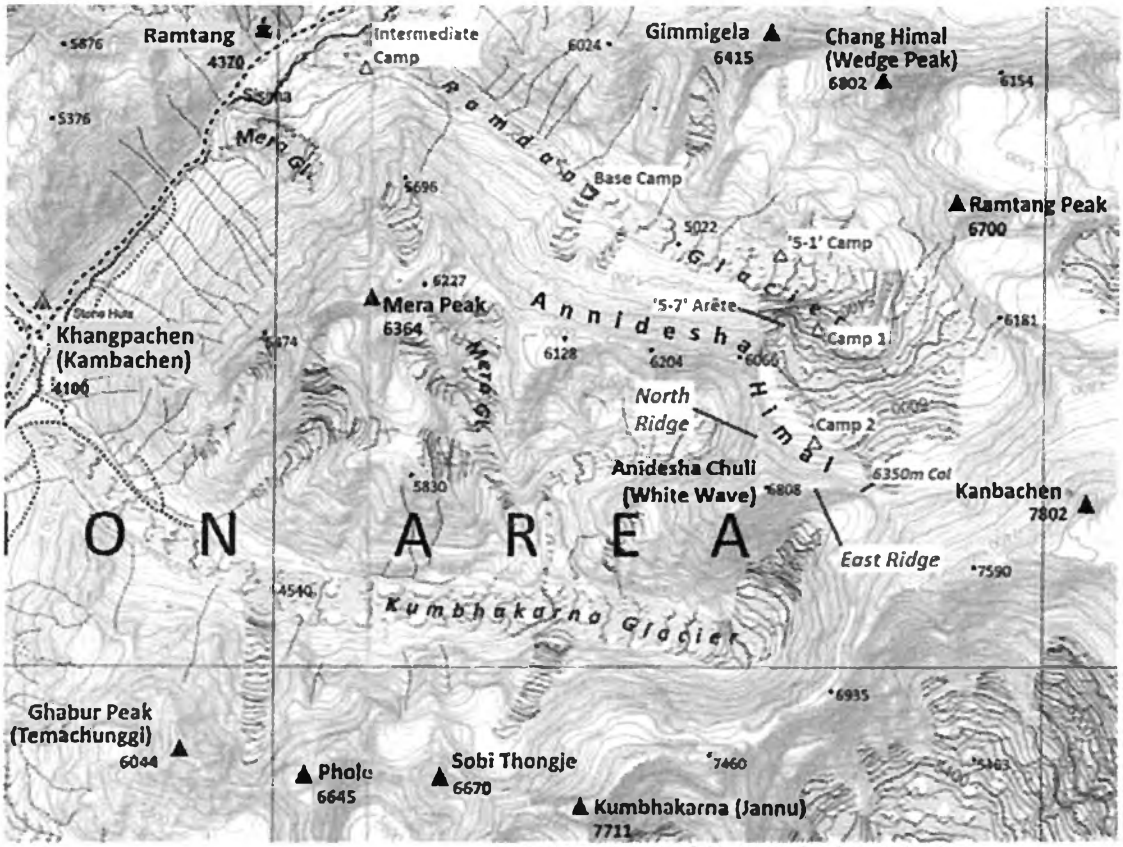
Another notable peak in the area is the spectacular Jannu/Kumbhakarna (7,711m), first climbed from the South by a French team in 1962. A large New Zealand team attempted the imposing North Face in 1975. They experienced cold conditions, strong winds, and high snowfall, and turned back at the beginning of the summit ridge. A Japanese team completed the route in good conditions seven months later in 1976. New Zealander Athol Whimp with Australian Andrew Lindblade completed a very impressive alpine style ascent of the New Zealand-Japanese route in 2000, after an aborted attempt at a direct line on the North Face headwall.



In 2012, a six-strong New Zealand team (the New Zealand Yangma Expedition 2012) completed the first ascent of Suyaokang (6,041m), approximately 30km north-west of Anidesha Chuli.

Closer to Anidesha Chuli, a small handful of expeditions explored the Ramtang Valley between 1930 and 1975, mostly for attempts on Kambachen (7,802m). Accounts of those expeditions revealed that a route from the Ramtang Glacier has been used to access a high col at the base of Anidesha Chuli's East Ridge (6,350m). That col has never been accessed from the Jannu valley.

The 2013 Anidesha Chuli expedition members departed New Zealand for Nepal on 7 April 2013. On 13 April the team, together with their three support staff and 28 porters, began their trekking approach into the Kangchenjunga Himalaya. Eight days later they reached the stark Ramtang Valley, a tributary of the Kangchenjunga Valley. Base Camp was established on the Ramtang Glacier at 4,800m; Camp 1 on the edge of the Ramtang Icefall at 5,500m, and Camp 2 on the Ramtang Neve at 6,000m.



Annotated excerpt from Nepa Maps 1:100,000 map of the Kangchenjunga Region

The team departed Base Camp on 1 May for their first summit attempt. By early afternoon on 4 May, Ben Dare and Scott Blackford-Scheele were less than 50m from the crest of the East Ridge where they had intended to set up Camp 3 at 6,500m. Scott was leading the penultimate pitch when (most likely) an avalanche resulted in him falling around 85m, and sustaining severe concussion. There is no doubt that the snow stake anchor saved both climbers' lives. For the next 24 hours Ben lowered and assisted Scott back down to Camp 2, and once there, activated an emergency beacon, prompting Rob and Andrei to climb through the night from Base Camp to Camp 2 to provide assistance.

Scott and Ben were evacuated by helicopter on 6 May, and Scott has since recovered completely. The 2013 team were thankful that they developed a robust risk management plan before departure, left detailed intentions with key contact people in New Zealand and Kathmandu, and took several independent devices for communication. These factors ultimately enabled an efficient evacuation for Scott and Ben.

Three days after the evacuation, after learning that Scott's condition was stable and improving, Andrei van Dusschoten and Rob Frost embarked on a second summit attempt via a slightly different route, only for this to be halted at Camp 1 due to their last remaining form of communication – a satellite phone – not being usable. This signalled the end of their expedition.

Expedition Team

All three members in our team come from different mountaineering backgrounds, resulting in a broad mix of experience and age. All members have a history of strong technical climbing and we all enjoy trips to remote places.

(Note – ages are at commencement of expedition)

Paul Hersey (New Zealand) 46, Writer

With 25 years mountaineering experience in New Zealand and overseas, Paul is the team's most experienced climber. He has a prolific record of new alpine routes in the Southern Alps, along with new rock routes, new ice routes, first snowboarding descents and first caving descents. Paul has also written books on climbing, contributes to various climbing magazines including Alpinist and Climber, and has produced mountaineering and climbing films. His documentary One Fine Day On A Mountain won a Special Jury Award at the 2013 New Zealand Mountain Film Festival. Along with two seasons in the European Alps, Paul has participated in expeditions to India (2007), Kyrgyzstan (1996, 2008), and Pakistan (2009), all with successful first ascents.

Shelley Hersey (New Zealand) 38, Educator

Shelley is following in the footsteps of top kiwi alpinists Pat Deavoll, Lydia Bradey, Karen McNeill and Julie-Ann Clyma, and is one of this country's stronger all round female climbers. In 20 years of mountaineering, she has completed several grade 5 alpine climbs and ice climbed up to WI4 in the Southern Alps, as well as rock climbed to grade 24 (5.11d) in New Zealand, Australia and Thailand. New routes include Mt Hooker (North Face, grade 5), Mt Conrad (West Face, grade 3+), Walter Peak (West Rib, grade 4-), new rock routes on Glen Lyon and new ice climbs on Rabbiters Peak and Glencairn. Overseas, Shelley performed strongly at altitude on an expedition to the Indian Himalaya in 2007. If successful on this expedition, Shelley would be possibly the first Kiwi woman to ascend an unclimbed mountain over 6800 metres.

John Price (Australia) 28, Rope Access Technician

John is young, keen and very strong. Based in New Zealand, he is among the new generation who excel on all aspects of climbing, whether it is rock, ice, mixed or alpine. Climbing since 2009, John has already completed a series of impressive first ascents and difficult repeats up to grade 25, WI6 and M9. Over the past two seasons John had been climbing in North America, where he sent a number of the Canadian Rockies test pieces and completed a successful expedition to Ruth Gorge in Alaska. This would be John's first Himalayan expedition. Due to his technical ability, strength and enthusiasm, John was considered a valuable and highly skilled member of the team. If successful on this expedition, John would possibly be the youngest Australian to ascend an unclimbed mountain of this height.

Finances

Despite being a small-scale, reasonably lightweight expedition, our average per-person costs were reasonably high due to the remoteness of the objective and the allowance for the 24 days at or above base camp.

It is clear that without generous support from Sport New Zealand, the North Face Adventure Grant, the Mount Everest Foundation, Bivouac Outdoor and the New Zealand Alpine Club, the expedition could not have gone ahead, and we are extremely grateful for that support. Other sponsors we need to thank include Earth Sea Sky, Back Country Cuisine, Eight Ranges Wines and The Muscle Mechanics.

Below is a summary of our income and expenditure.

Anidesha Chuli Budget for 3 Expedition Members

Expedition Costs: (NZ dollars)		**Expedition Income:**	
Travel - flights	$7,000	Amount of Personal Contributions	$13,360
Food	$2,000	Mount Everest Foundation Grant	$4,500
Liaison Officer	$1,700	Sport NZ Hillary Expedition Grant	$10,000
Peak fee	$2,200	The North Face Adventure Grant	$8,400
Base Camp Logistics for 3 climbers	$15,300	NZAC Expedition Grant	$1,800
Satellite phone hire and use	$1,000		
Primus Gas	$110		
Accommodation in Kathmandu for 3 (11 nights)	$1,100		
Tips	$700		
Visas	$350		
Tent	$500		
Repair Kit	$200		
First Aid Kit	$300		
Vaccinations	$600		
Insurance	$1,500		
Other and contingency	$1,500		
Filming costs	$2,000		
TOTAL	**$38,060**	**TOTAL**	**$38,060**

Funding and obligations

Applying for grants is a good, but sometimes complicated, means of gaining funding for an expedition. Our main funding opportunities came from Sport New Zealand (with the Hillary Expedition Grant), The North Face Adventure Grant and the Mount Everest Foundation. We also received a smaller grant from the New Zealand Alpine Club and sponsorship (equipment and clothing) from Bivouac Outdoor.

Receiving these grants can mean agreeing to a list of conditions, which can include certain media requirements before and after the expedition, a higher level of risk management analysis and accountability, and overall a much higher public profile.

It is worth noting that this public profile can increase pressure to perform and has the potential for a certain level of criticism from some sectors if the trip does not prove successful.

While recognising the requirements of the grants, and accepting with grace the higher public profile, it is important to be able to distance yourself from these pressures when making critical decisions about risk on the expedition. During key times of the expedition, there was a certain level of second guessing about the decisions we were faced with. Yet, once back in the 'safety' of home, we felt that the best decisions possible were made.

Logistics

Locally-arranged logistics

Logistical requirements such as applying for permits, organising base camp equipment, arranging staff, porters, and their insurance, transport to/from the expedition area and countless smaller but essential tasks, would have been impossible to coordinate from New Zealand. A specialist agent based in Kathmandu is essential for the provision of logistical services for any mountaineering expedition to Nepal. A local agent has the required knowledge and contacts which we could never dream of acquiring, and can make the necessary in-person communication with the relevant agencies and service providers.

We engaged the services of *Dream Himalaya Adventures* Pvt. Ltd (DHA), run by Dawa Sambu Lama, and would certainly recommend this company for any future expeditions to Nepal.

Permits required

Visitors to Nepal require a visa to enter. Each team member obtained a 90 day visa on arrival at Tribhuvan Airport for US$100.

Anidesha Chuli is on the Nepalese Ministry of Culture, Tourism and Civil Aviation's list of Expedition Peaks, and can only be attempted with a peak permit from the Ministry. The cost of a peak permit for an expedition peak between 6,500m and 6,999m, attempted in the pre-monsoon season by a party of three, is US$1,400. Expedition teams attempting peaks over 6,500m must be accompanied by a Liaison Officer (LO), whose costs (US$1,800) must also be covered by the expedition team.

Anidesha Chuli is located in the Kangchenjunga Conservation Area (KCA) which is a 'Restricted Area.' A mountaineering peak permit overrides the need for any additional permits and fees associated with visiting the area. However, trekkers – including non-climbing members of an expedition party – visiting the KCA must obtain a trekking permit, which can be arranged by an agent in Kathmandu. Conditions of the permit require that trekkers be accompanied by a Nepali guide and pay US$10 per week to cover the duration of their trek in the area.

DHA applied to the ministry for the peak permit on our behalf which was dependent on;

(a) full payment of the permit fee, and

(b) our attendance at a briefing held at the ministry's office in Kathmandu, which took place during the three days we had in Kathmandu at the beginning of the expedition.

(Note: We were introduced to our LO during the briefing at the Ministry's office prior to our departure from Kathmandu. He advised that he would follow a couple of days after us and meet us at Base Camp. We never saw him during the expedition, but he appeared again upon our return to Kathmandu, when he 'helped' us fill out his appraisal form. This sort of practice seems to be commonplace, but may be due for a change after the latest Mount Everest tragedy.)

Travel Insurance

Paul and Shelley took out High Risk Activity travel insurance through a policy held by the New Zealand Alpine Club with ACE Insurance. This included an extension covering evacuation and medical expenses related to mountaineering up to an altitude of 7,000m, while John took out extensive insurance with Global Rescue.

Equipment

Lists of team and individual equipment which was taken on the expedition, including gear used during the approach trek can be found in the Appendix Section of this report.

Photography and filming

The plan was for a small documentary to be made on the expedition and so a large amount of photography and filming equipment needed to be taken. This included:

- Two DSLR cameras and a range of lenses
- Two smaller point and shoot cameras with video capability as well as a Go Pro.
- A tripod and manual dolly slider
- An external sound recording unit
- Charging equipment

We also brought a lightweight laptop and a LaCie Rugged 1TB external hard drive for storage and review of photo and video files.

Risk management

Objectives

The main objective of the risk management plan was to minimise the possibility of an accident or major injury (or death) occurring, and if one did occur, to facilitate a rescue/evacuation of the injured parties in an efficient, safe, and low-impact way. The outcomes and learning's of the accident that occurred in 2013 were taken into account when assembling the Risk Management Plan for this expedition.

Accident prevention

- All team members are skilled alpinists with experience retreating from mountaineering objectives over sustained technical terrain during compromising weather conditions.
- All members received the recommended inoculations/vaccinations prior to departing New Zealand.
- Our itinerary allowed for a conservative acclimatisation schedule (average of 300m/night), to minimise the chance of altitude-related illness.
- We received daily weather forecast updates via text messages to our satellite phone. This allowed us to more easily avoid being high on the mountain during stormy weather.

Accident management

Being able to perform self-rescues and administer first aid ourselves were our primary accident management tools. We also planned to descend immediately if HAPE or HACE was suspected in any team member.

Our back-up accident management tools, in case of a serious incident, involved our communication equipment: a GPS-enabled 406MHz emergency locator beacon, and a satellite phone. We chose this selection so that we would have a backup if one method failed. The beacon was registered with the Rescue Coordination Centre New Zealand (RCCNZ), who had details of our intentions.

A small group of people who would be in New Zealand during the expedition were selected to be our emergency contacts. We gave them documentation which included the following information:

- Contact information, including team members' next of kin, our agent in Kathmandu, medical contacts, the NZ Honorary Consul in Nepal, RCCNZ, and our weather forecast contact person
- Expedition itinerary
- List of medical equipment to be taken on the expedition (included in Appendix C of this report)
- Travel insurance details; and an emergency response plan in case of a serious incident.

Our full Risk Management and Environmental Plan can be found in the Appendix A of this report.

Expedition Timeline

Expected Anidesha Chuli Expedition Itinerary (ex-Kathmandu)

Date			Activities	elevation at end of day	BC & Mountain days	En route days
07-Apr-14	1	-	Arrive in Kathmandu	1700m		
08-Apr-14	2	-	in Kathmandu	1700m		
09-Apr-14	3	-	in Kathmandu	1700m		
10-Apr-14	4	1	Drive to East Nepal, O/N Fikkal	1900m		1
11-Apr-14	5	2	drive to Taplejung	1800m		2
12-Apr-14	6	3	trek to Sinwa	1300m		3
13-Apr-14	7	4	trek to Sekathum	1600m		4
14-Apr-14	8	5	trek to Amjilosa	2500m		5
15-Apr-14	9	6	trek to Phole	2700m		6
16-Apr-14	10	7	trek to Ghunsa	3500m		7
17-Apr-14	11	8	rest day in Ghunsa	3500m		8
18-Apr-14	12	9	trek to Kambachen	4100m		9
19-Apr-14	13	10	trek to Ramtang valley	4400m		10
20-Apr-14	14	11	trek to Base Camp	4800m		11
21-Apr-14	15	12	Emergency day for in case	4800m		12
22-Apr-14	16	13	at base camp; reconnaissance of lower route; acclimatising	4800-6000m	1	
23-Apr-14	17	14			2	
24-Apr-14	18	15			3	
25-Apr-14	19	16			4	
26-Apr-14	20	17			5	
27-Apr-14	21	18			6	
28-Apr-14	22	19			7	
29-Apr-14	23	20	Attempt Anidesha Chuli	4900-6800m	8	

30-Apr-14	24	21			9	
01-May-14	25	22			10	
02-May-14	26	23			11	
03-May-14	27	24			12	
04-May-14	28	25			13	
05-May-14	29	26			14	
06-May-14	30	27			15	
07-May-14	31	28			16	
08-May-14	32	29			17	
09-May-14	33	30			18	
10-May-14	34	31			19	
11-May-14	35	32			20	
12-May-14	36	33			21	
13-May-14	37	34			22	
14-May-14	38	35			23	
15-May-14	39	36			24	
16-May-14	40	37	trek to Kambachen	4100m		13
17-May-14	41	38	trek to Ghunsa	3300m		14
18-May-14	42	39	trek to Amjilosa	2500m		15
19-May-14	43	40	trek to Chirwa	1600m		16
20-May-14	44	41	trek to Taplejung	1800m		17
21-May-14	45	42	drive to Fikkal/Birtamod, O/N bus to KTM	100m		18
22-May-14	46	-	KTM	1700m		
23-May-14	47	-	in Kathmandu	1700m		
24-May-14	48	-	in Kathmandu	1700m		
25-May-14	49		Fly out of KTM			

Trip Summary

We planned to attempt Anidesha Chuli during the pre-monsoon (Spring) season, due to traditionally warmer temperatures and milder winds than the post-monsoon (Autumn) season. We planned for 24 days at or above Base Camp to allow time for acclimatisation, reconnaissance, and more than one summit attempt. The following is a summary of the actual events during the expedition:

After the two day bus ride (around 30 winding, bone-jarring hours) from Kathmandu to Taplejung in the far east of Nepal, we were certainly keen to start walking. With our staff Ang Nima, Sangay and Tenzin, and 20 porters carrying around 700kgs of food and equipment for base camp, we followed the Ghunsa River for 10 days, passing through small villages, farmland and forest. Sometimes we stayed close to the river, crossing narrow wire bridges over tight gorges, and other times climbed steeply up to high terraces that allowed views of the mountains ahead. During the trek in we stayed in small tea houses at various settlements as listed in the expedition itinerary.

John got sick at Sekathum, initially complaining of a stomach bug but which soon deteriorated into a very high resting pulse, high fever, vomiting, diarrhoea and delirium. This continued for a number of days. At one stage Shelley and Paul discussed whether John would need to be evacuated, but a satellite phone call to Dr Dick Price back in New Zealand and a change of antibiotics saw John slowly on the mend (thanks Dick!).

To keep the trip progressing (and to ensure we didn't lose our porters and gear!), Paul needed to go on ahead with Ang Nima. Once hearing that John was getting better, he waited for the others at Kambachen, the last small summer settlement before heading up the side valley Ramdang to the site of basecamp. Kambachen offered amazing views of Jannu (Kumbhakarna), at 7711m one of the world's most incredible mountains. The upper headwall in particular looked rather intimidating if considered as a climbing objective.

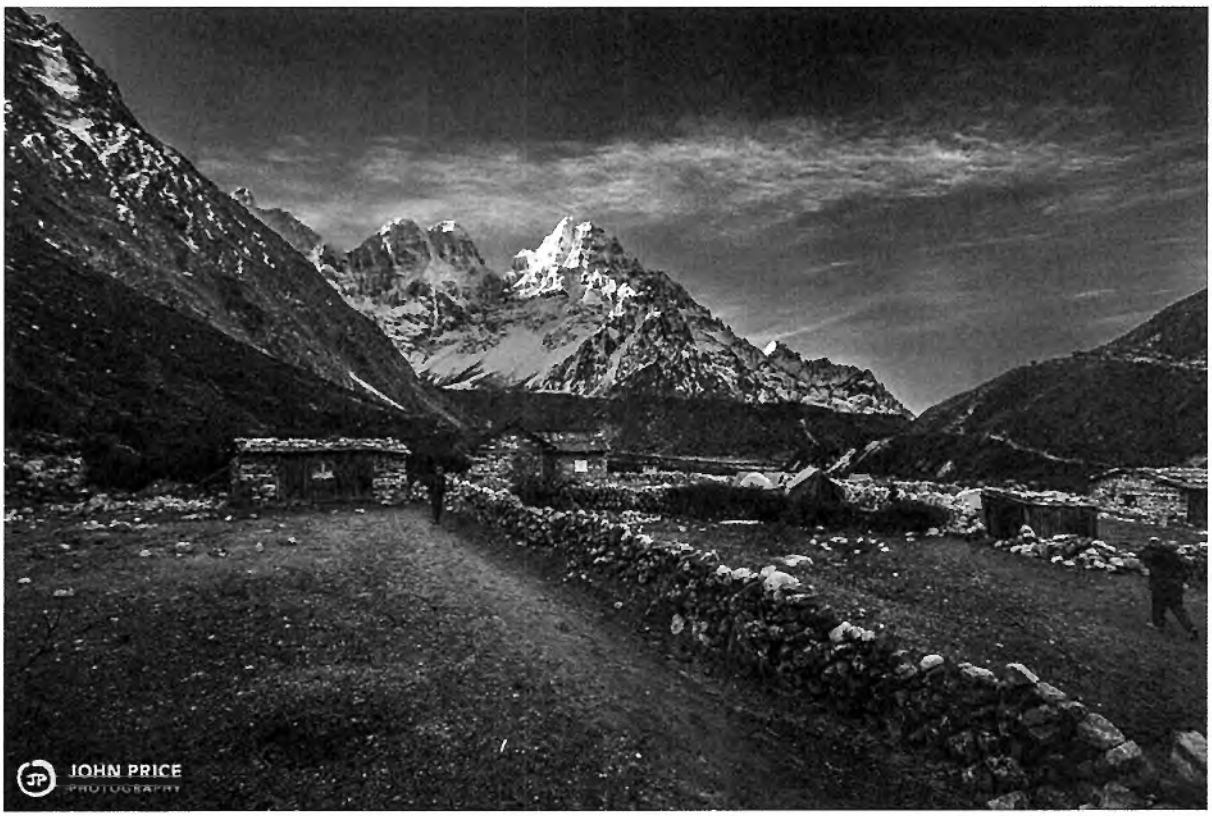
A long slow height gain from Kambachen (4145m), including seeing fresh snow leopard prints on the track we were following, saw us establish basecamp on the moraine rubble of the Ramdang Glacier at around

4800m. The most suitable site, it still offered plenty of visual excitement with countless rock falls off either moraine wall above us and the occasional collapsing serac from high summits to the south. We all quickly calculated (trying to convince each other and ourselves) that no flying missiles should be able to quite reach our tent sites!

So far the weather had been mostly stable, with afternoon cloud bubbling up from the valley but with little wind or snowfall.

With everyone feeling rested and relatively comfortable at the altitude, and after John and Shelley did a load carry to a potential site for Camp 1 at around 5200m, we jammed our packs with essential food and climbing equipment and set off for our first acclimatising climb. Everyone seemed fine at the Camp 1 site, underneath the main icefall below Anidesha Chuli, but by the time the tents were erected Paul was showing signs of Acute Mountain Sickness (AMS). Over the next two hours he deteriorated markedly, to a point of High Altitude Cerebral Edema (HACE), and John and Shelley decided to try and get him back down to basecamp as quickly as possible. Over the next few hours they managed to help Paul down the glacier, arriving back at basecamp around 9pm. With the loss of altitude, Paul's condition improved, although he was still feeling quite unwell the next day and slowly improved the days following.

The next morning, John and Shelley continued their acclimatising, pushing up to a site for Camp 2 at 5400m. Snow conditions were poor through the icefall, with unconsolidated drifts up to thigh deep and little visibility due to low cloud. By this stage the weather forecast was for a mix of stronger winds and snow showers. The following morning they continued up to 5600m, sometimes forcing through waist deep snow (at one stage a 90m height gain took over two hours). When a thunderstorm hit, followed by heavy snow, the pair decided to retreat back to basecamp.



Over the next week, the weather was poor, with snow every day at basecamp and varying wind strengths. With already dubious snowpack stability, the team was concerned that extra snow was only exacerbating conditions. Numerous avalanches were seen and heard on the lee slopes above camp. The forecast for the following week was for more of the same.

It was estimated that at least six days would be required to climb and descend Anidesha Chuli. With days running out, Paul suggested that he remain at basecamp on any future attempt, hopefully allowing a higher chance of team success as John and Shelley were moving more efficiently at altitude. If John or Shelley were unable to attempt a climb, he would become the second team member.

John and Shelley decided to attempt a climb as soon as a small break in the weather appeared. In the afternoon they returned to Camp 1 to spend the night. It snowed that evening, but the next morning was clear, so they pushed up towards 5700m, trying to find a way through the icefall to reach the upper neve. Again they were faced with unconsolidated snow, sometimes chest deep now, and they were unable to find a way through the next tier of icefall in deteriorating visibility. Another storm hit that afternoon with more snow, and they decided to abandon the climb.

In hindsight, and despite major disappointment at the time, it was clearly the right decision to descend from the mountain. Conditions higher on Anidesha Chuli would likely have been much worse than what John and Shelley experienced at 5600-5700m. We have since found out that this has been a particularly high snowfall season in the Himalaya, with heightened avalanche risk across the range. And indeed the tragedies on Everest and Kanchenjunga (both due to avalanches) have further illustrated just how risky things were this season.

Conclusion

We love climbing mountains, and reaching their summits, but these goals are not as important as making prudent decisions about risk and about the value of life. Coming home safely is the most important goal of all. While there is no absolute test for the right of wrong of any decision based on risk without carrying on till the summit or death, we felt that we made the right calls at critical times of the expedition.

Others to thank

Thanks to all of our sponsors as mentioned earlier in this report and to all of our friends and family for their ongoing support.

Thanks to Rob Frost for being our main emergency contact person, and for Clayton Garbes for persevering in providing us with weather forecast updates, despite the worsening nature of them. And thanks to Clayton for updating our Facebook Page.

Appendices:

A: RISK MANAGEMENT AND ENVIRONMENTAL IMPACT PLAN

Prepared By: Shelley Hersey, Paul Hersey and John Price | 27 November 2013

New Zealand Anidesha Chuli (White Wave) 2014 Expedition

SECTION A: MAJOR RISKS IDENTIFIED

Risks associated with the expedition are identified and organised into two categories. The first category consists of risks related to the climbing phase of the expedition. The second category consists of risks during the time spent travelling, including trekking to and from base camp and other non-climbing related risks.

A1: CLIMBING-SPECIFIC RISKS IDENTIFIED

A number of risks exist during the climbing portion of the Anidesha Chuli (White Wave) Expedition. These have been grouped into two sub-categories;

- objective risks – risks that exist without the influence of the climbing team and which are inherent to the location of the climb
- subjective risks – risks that relate directly to factors introduced by the climbers

Objective Risks

Acute Mountain Sickness (AMS)

AMS is commonly referred to as "altitude sickness." This is the body's reaction to a lack of oxygen at high altitude. AMS can develop into two more serious conditions:

- High Altitude Cerebral Edema (HACE)
- High Altitude Pulmonary Edema (HAPE)

HACE involves a swelling of the brain which prevents it from functioning in the normal way. HAPE is an excess fluid build-up in the lungs, either in the lung tissue itself or in the space normally used for gas exchange, resulting in being unable to get enough oxygen to function normally.

HACE and HAPE can be fatal.

Sun-Related Injuries

Exposure to the sun increases significantly with altitude, as well as in highly reflective snow and ice environments. Injuries in this environment include sunburn, heat exhaustion, snow blindness and dehydration.

Cold-Related Injuries

The often harsh alpine environment can lead to serious cold-related injuries; the most prevalent of which are frostbite and hypothermia. Frostbite occurs when the body is exposed for a period of time to temperatures at or below zero degrees Celsius, and involves the freezing of skin tissue and blood vessels, typically in the extremities (hands and feet). In extreme cases this can be followed by freezing of deeper tissue and eventually bone. Hypothermia begins when the core body temperature drops below 35 degrees Celsius and can have fatal consequences if the core temperature is not raised safely again. The onset and effects of both frostbite and hypothermia is enhanced by bad weather.

Terrain-Related Risks

The steep nature of most alpine terrain means that it is sometimes unstable and constantly changing. As a result of this, mountain faces are prone to being swept by rockfall, icefall, and avalanches. Furthermore, the glaciated environment on Anidesha Chuli presents fall hazards in the form of crevasses and moulins, some of which may be covered with snow and difficult to see.

Subjective Risks

Subjective risks directly relate to and are influenced by the actions and decisions a climber while on a mountain. These actions and decisions are affected by factors including:

- Fatigue/Fitness
- Technical difficulty of the terrain versus the ability of a climber
- Equipment
- Ignorance of route/conditions

The result of poor decision making and subsequent action from that decision can increase the likelihood of an accident occurring.

A2: GENERAL RISKS IDENTIFIED

There are a number of non-climbing related risks identified. These include:

Political Instability

The current political situation in Nepal, and in particular within the Kangchenjunga region, is currently stable and is not considered to be a serious risk. The NZ government advise "some risk" due to an uncertain political and security situation, but the Maoist activities of the last few decades officially ended in 2006.

Government Bureaucracy

Delays in the issuing of tourist visas and peak permits.

Loss of Equipment

Loss of climbing equipment, first aid equipment, tents, food etc.

Travel Delay

Delays arriving in Nepal, and while trekking to and from base camp.

Sickness/Injury

The sickness that we have the highest risk of contracting during our time in Nepal is Dysentery. This is typically caused by Giardia, Amoebic Dysentery, or food poisoning. Other potential health risks include endemic diseases such as Hepatitis A, Hepatitis B, Typhoid, Rabies, and Polio, which have all been identified as being present in the areas we will visit. There is also the risk of sustaining an injury during the trek to and from base camp.

Weather Conditions

This is dealt with in two sections. The first covers approach weather, which could delay our departure from the city and while trekking to and from base camp. The second section deals with mountain weather conditions while attempting our proposed climb. The influence of adverse weather during the climbing period is identified as being one of the greatest risks that the expedition will be exposed to. If conditions are unfavourable, this has the potential to render our objective un-climbable. If we encounter poor weather during an attempt to climb, the risk of exposure and cold related injuries such as hypothermia and frostbite, as detailed above in section A1: CLIMBING SPECIFIC RISKS IDENTIFIED, will be significantly increased.

SECTION B: RISK MITIGATION STRATEGIES

As above in SECTION A: MAJOR RISKS IDENTIFIED, the mitigation strategies for the various risks identified are separated into two categories: climbing specific risks and general risks.

B1: CLIMBING SPECIFIC RISK MITIGATION

Objective Risks:

Acute Mountain Sickness – The key to reducing the risk of Acute Mountain Sickness is to sufficiently acclimatize prior to attempting our new route. We will achieve this in part by the length of the approach trek. Once Base Camp has been established, there is significant time built in to the itinerary to set up an Advanced Base Camp, safely identify a route across the Neve of the glacier, and wait for a an appropriate weather window.

In addition to maximizing our opportunities to acclimatize, we all understand and recognize the primary symptoms of both HACE and HAPE and will immediately descend if symptoms present. Climbing in a group of three and sharing one tent will allow us to continuously monitor the other team members, reducing the possibility of symptoms going unnoticed.

We will also carry specialized medication to combat the onset, and assist with the treatment, of both HACE and HAPE. Refer SECTION F: EXPEDITION FIRST AID/MEDICATION LIST below for details.

Sun Related Injuries – The risk of suffering from sun related injuries such as sunburn, sun stroke, and snow blindness will be reduced by implementing protective measures such as wearing full length clothing, hats, sunglasses/goggles, sun block and protective lip balm. Where possible, we will also avoid exertion during the hottest times of the day. The risk of dehydration will be minimized by maintaining a high intake of fluids and by using electrolyte supplements.

Cold Related Injuries

As with sun related injuries the best mitigation for cold related injuries is about prevention rather than cure. By ensuring that expedition members are equipped with insulated clothing and equipment, we will minimize the risk of developing cold related injuries such as frostbite and hypothermia. This includes multiple layer gloves and insulated climbing boots with separate liners and insulated super-gaiters, to protect our extremities which are most at risk from frostbite, and down jackets and sleeping bags to ensure our core temperatures are maintained when we are inactive at belays and camp sites. We will also be wearing several layers of thermal and fleece clothing. Wearing multiple layers allows for air pockets to be trapped within the clothing, and between layers, which helps to moderate and maintain a higher overall body temperature. To regulate body temperature through use of clothing (and non-use), we will aim to minimize sweating and stay hydrated. Furthermore, all climbing parties will be equipped with some form of an emergency shelter. This could be extra clothing, sleeping bag, emergency bivy bag, or multiple-person bothy bag shelter where one or more climbers can take refuge in adverse conditions or when requiring rest.

Terrain Related Risks

The risk posed by steep and exposed terrain is best mitigated by experience and the ability to read the mountain conditions and assess potential dangers presented. All three team members have extensive experience on various mountainous terrain types; rock, ice and snow, and are well versed with the risks associated with each.

Where possible we will avoid terrain traps such as narrow gullies, which can act as funnels for falling rock and ice, and lee-ward or sun exposed snow slopes, which are prone to avalanching. Where we cannot avoid

avalanche-threatened or prone terrain, we will only cross these areas early morning or evening, when the snow and ice is more bonded through colder temperature.

Throughout the climb, conditions will be assessed and considered when deciding if, when, and how to proceed. To mitigate the risk of exposure to unstable snowpack and avalanches, the terrain will be assessed on-site, including (but not limited to) weather history, snow condition, UV exposure, slope angle, and nature of the terrain. We will also watch for tell-tale signs of recent falling material, such as debris cones, and under no circumstances will we attempt to climb a line which we deem to have unacceptable objective risk. When traveling through terrain that has the potential to be threatened by avalanche, all climbing members will be equipped with an avalanche transceiver, shovel, and probe to be used for rescue in the event that any other climbing member is buried by avalanche debris.

Subjective Risks

In an effort to reduce the impact of subjective risks, and the factors that can lead to them occurring, we will implement a range of measures. This will include: Fatigue/Fitness – Completing an intensive fitness training program prior to departing for Nepal to guarantee that we are in peak physical condition. Ensuring that we are properly acclimatized and well rested when we attempt our climb and by eating high energy foods and supplements combined with drinking sufficient fluids to avoid dehydration.

Technical difficulty

We will encounter technical difficulties during our proposed climb. However we have all previously climbed on similar technical terrain and by arriving at the base of the route in healthy condition we are confident that any obstacles can be overcome.

Equipment

We will take an extensive array of specialist equipment with us to Nepal to optimize our chance of success. All of which is of a very high quality and is either new or in near new condition. Additionally, all gear will be tested and familiar by Team members prior to use on the expedition. Refer SECTION E: EXPEDITION EQUIPMENT LIST below for a comprehensive break down.

Ignorance of route/conditions

As part of the expedition planning phase in depth research has been completed on the objective peak to ensure that as a team we are as informed on the nature of our proposed route as we can possibly be. This has included being in close contact with the 2013 team members and learning from their experiences.

B2: GENERAL RISK MITIGATION

By attempting our objective climbing in a lightweight "alpine style," we will be travelling as a small and self-sufficient team. This means that we will be able to operate on the mountain without assistance from external parties and be able to be and capable of self-rescue. That being said, we will be relying on our satellite phone and emergency locator beacon to initiate a rescue in extreme situations.

All three team members are skilled alpinists who have had experience in both ascending and descending steep terrain in unfavourable conditions.

While climbing on Anidesha Chuli, the team will carry with them a satellite phone. This will allow for quick and efficient communication with external parties. In particular it will allow us to stay regularly updated with weather conditions and also in the unlikely event of an accident to call for assistance.

The Team will also have a 406M Hz emergency locator beacon in their possession, with two emergency contacts in NZ registered. Rob Frost, the team leader from the 2013 expedition, has agreed to be our primary emergency contact. His knowledge and experience of the area will be invaluable should an accident occur.

If an emergency does occur which requires evacuation, we have comprehensive Rescue and Recovery insurance included in our trip insurance taken out through the New Zealand Alpine Club to cover the costs of a possible rescue and/or evacuation. The satellite phone and emergency locator beacon were essential to an efficient rescue occurring during the 2013 expedition. We will closely follow the procedures used by that team should the need arise.

To assist with navigation in unfavourable conditions such as white outs, the team will be carrying a number of bamboo wands with flags attached, which can be placed at regular intervals across the glacier neve from Advanced Base Camp to the base of the route up to the summit ridge.

In the event that an expedition member becomes ill or suffers injury, all resources will be focused towards preserving health and life of that member. This applies to all locations and all situations, and all team members agree to follow through in this agreement in an emergency situation, even if doing so results in a dramatic change to the itinerary or failure to complete the climbing objective.

Prior to embarking on our climb we will also leave detailed intentions at base camp. This will include our intended ascent and descent routes and the time likely to be taken on the climb. From this a panic date will be established, allowing sufficient time for the possibility of unanticipated delays, and if this date is reached without our return then the alarm will be raised from base camp, via another satellite phone in Ghunsa (1 day away).

Further to this we will also register our intentions, including a detailed itinerary, with family, friends, the New Zealand Consulate and the Nepal Mountaineering Association prior to disembarking from Kathmandu. From this an expedition panic date will be set. Also, we will have access to the internet and other communications when we pass through Taplejung at the beginning of the trek and we will adjust our itinerary as required if it differs from that originally intended. Our logistics agency, Dream Himalaya Adventures, also has a similar intentions system established and the expedition team members will be in regular contact with the head office in Kathmandu. If this communications flow is disrupted, or if we exceed our panic date, then the alarm will be raised with the Nepal Mountaineering Association and Himalayan Rescue Association (Nepal).

Political Instability

As previously mentioned we do not consider political instability to be a serious threat to the expedition; however in the unlikely event of instability, such as a civil uprising, terrorist activity, or political protest, etc., we have coverage in our insurance to assist with an evacuation back to New Zealand. Furthermore, all Team members will make every effort to be discrete in their actions and notify the appropriate government Embassy of their situation.

Government Bureaucracy

In order to reduce the potential risk associated with government bureaucracy we have pre-booked our peak permits through a registered trekking agency, Dream Himalaya and hence we do not anticipate any delays. It is normal for tourist visas to be applied for, and granted, upon arrival in Kathmandu.

Loss of Equipment

Typically we will carry additional spares of all essential equipment such as climbing ropes and protection (ice screws and wires etc.) .

On the mountain, spares of essential climbing equipment will be located at Base Camp, including: boots, mittens, sunglasses, goggles, crampons, and ice axe.. Equipment necessary for repairs to equipment will also be along, including pliers, screw drivers, metal files, wire and wire cutters, needle and thread, adhesives, and duct tape.

Travel Delay

To compensate for any possible travel delays, we have an itinerary that allows for two days of delays arriving into Nepal, an extra week of climbing and mountain time, and two days in Kathmandu when exiting Nepal.

Sickness/Injury

To reduce the risk of sickness we will eat only freshly prepared and cooked food on the trek and at base camp, eat dehydrated and pre-packaged food while climbing, and drink only treated water throughout the entirety of the trip. In the event of sickness occurring, we will carry a selection of anti-diarrheals and antibiotics available to use. Also prior to leaving for Nepal, all of the expedition members will have visited a medical travel consultant and have had a series of inoculations to minimize the risk of contracting local endemic diseases. This includes vaccinations for Hepatitis A, Hepatitis B, Typhoid, Tetanus, Rabies (at each individual's discretion) and Polio.

Weather Conditions

Approach weather: Adverse weather conditions during the trekking approach can be in the form of rain and natural disaster (earthquake, land slip). Rain could cause flooding and damage to the existing walking tracks and river crossings. Natural disaster, such as earthquake, is a very possible hazard, and could also destroy tracks and river crossings. To address these issues, flexibility is a must, and this is reflected in our itinerary allowing generous time to approach our base camp and also climb the intended route on Anidesha Chuli. Flexibility will also be part of the agreement between climbers on the trip to let nature take its course, even if it means waiting a few additional days for a safe approach. In 2010, when the earthquake occurred the area was able to recover use of its infrastructure relatively quickly, with river crossings quickly rebuilt. Since the trip will be in

Nepal well before the onset of the annual monsoon season we anticipate that weather conditions are likely to be stable. We do not foresee any significant delays occurring during the vehicular and trekking approach as a result of poor weather conditions.

Mountain weather: This is deemed to be an area of greater risk to the success of the expedition, as unfavourable weather conditions have the potential to severely hamper progress on our intended route. When in the Kangchenjunga region we will constantly be monitoring the weather and the condition of our intended route and will only begin an attempt when both are stable and safe. This will be done using forecast updates received via satellite phone and mobile phone when we are trekking, and at base camp and by using the local knowledge of the liaison officer and other staff provided by the trekking agency. Again, knowledge from the 2013 expedition team has been very useful here. We will also use the satellite and mobile phones during our climbs to ensure that we are continually updated with current weather conditions. If we are warned of the approach of, or encounter, a significant weather event while on a climb we are prepared to abandon the attempt and descend immediately. The situation may also arise where a secure snow shelter

(i.e. cave) is the safest place to wait out a short storm. We have allowed sufficient time in our proposed itinerary to launch multiple attempts on our objectives if at first we are not successful. In the event of being caught out in bad weather while high on either of the peaks we will have adequate clothing, equipment and provisions to hunker down and sit it out for an extended period of time.

SECTION C: EMERGENCY SUPPORT CONTACT DETAILS

In the event of an emergency that cannot be effectively dealt with internally by the expedition members, and requires external support, some or all of the following emergency contacts may be called upon for assistance. The various emergency supports have been grouped into those in Nepal and those based in New Zealand.

C1: EMERGENCY SUPPORT CONTACT DETAILS - NEPAL

Name: New Zealand Honorary Consulate Kathmandu, Nepal
Street Address: Tiger Mountain Pvt Ltd
Gongabu
Kathmandu
Nepal
Postal Address: P.O. Box 242
Kathmandu
Nepal
Telephone: +9771 442 6427
+977 9849786967
Email: nzconsulate@tigermountain.com
Staff Details: Lisa Choegyal (Honorary Consul)

Name: Dream Himalaya Adventures (DHA) Pvt. Ltd
(Trekking agency with whom the expedition is traveling)
Postal Address: Chabahil
Sarswotinagar
Kathmandu – 6
Nepal
Telephone: +977 4823351
+977 9841212242
Facsimile: +977 4823346
Email: dreamhimalayas@gmail.com
Staff Details: Dawa Sambu Sherpa – (Lama) (Managing Director)

Name: Nepal Mountaineering Association
Postal Address: P.O.Box: 1435
Nagpokhari, Naxal
Kathmandu
Nepal
Telephone: +977 1 4434525
+977 1 4435442
Facsimile: +977 1 4434578
Email: office@nepalmountaineering.org
peaks@nma.wlink.com.np

Name: Himalayan Rescue Association Nepal
Street Address: Lazimpat Road (adjacent to the north gate of the Royal Palace)
Lainchaur
Kathmandu
Nepal
Postal Address: P.O. Box No. 4944
Kathmandu
Nepal
Telephone: +977 1 4440292
+977 1 4440293
Facsimile: +977 1 4411956
Email: hra@mail.com.np

Name: CIWEC Clinic Travel Medicine Center
Street Address: Lazimpat Road (adjacent to the north gate of the Royal Palace)
Lainchaur
Kathmandu
Nepal
Postal Address: PO Box 12895
Kathmandu
Nepal
Telephone: +977 1 442 4111 (Medical Unit)
+977 1 444 0100 (Dental Unit)
Facsimile: +977 1 441 2590
Email: info@ciwec-clinic.com (Medical Unit)
ciwecdental@subisu.net.np (Dental Unit)

Name: Nepal International Clinic
Street Address: Narayanhiti Path (opposite the south gate of the Royal Palace)
Lainchaur
Kathmandu
Nepal
Postal Address: GPO BOX 3596
Kathmandu
Nepal
Telephone: +977 1 4434642
+977 1 4435357
Facsimile: +977 1 434713
Email: nic@naxal.wlink.com.np

C2: EMERGENCY SUPPORT CONTACT DETAILS – NEW ZEALAND

The following people have agreed to act on our behalf as emergency contacts in New Zealand:

Rob Frost
Street Address: 4/14 Moa Place
Christchurch 8013
Telephone: +64 21 037 3597 (mob) +64 3 332 5095 (home)

Kester Brown
Street Address: 193A Taylors Mistake Road
Christchurch 8081
Telephone: +64 27 426 6173 (mob) +64 3 3265631 (home)

C3: EXPEDITION TEAM MEMBERS EMERGENCY CONTACT DETAILS

The emergency support details for each of the expedition team members are provided below.

Name: Paul Hersey
Next of kin: Glen Hersey (brother)
Street Address: 13 Tussock Place, Stoke
Nelson 7011
Telephone: 021 0696809 (mob) 03 547 4324 (home) 03 548 1234 (work)

Name: Shelley Hersey
Next of kin: Jill Graham (mother)
Street Address: 18 Clayton Street, St Clair
Dunedin 9012
Telephone: 03 4876 826

Name: John Price
Next of kin: Eleanor Price (mother)
Street Address: 72 Tyson Street, Ainslie
Canberra 2602
Australia
Telephone:0+61 2 6248 7515 (home)

Insurance details: All expedition team members have taken out an International Climbing Travel Insurance policy through the New Zealand Alpine Club (NZAC). The policy is arranged through Alpine Risk Management Ltd and underwritten by ACE Insurance Ltd. It provides coverage for personal accident (including search and rescue), medical expenses, loss of deposits and baggage, resumption of travel and missed transport connection, personal liability and political and natural disaster evacuation. The policy coverage has been extended to include high risk activities such as trekking and mountaineering.

Contact details: New Zealand Alpine Club
PO Box 786
Christchurch 8140
New Zealand
Telephone: +64 3 377 7595
Facsimile: +64 3 377 7594
Email: insurance@alpineclub.org.nz

SECTION D: EMERGENCY COMMUNICATION

If an incident occurs that requires any, or all, of the emergency support contacts identified above in SECTION C: EMERGENCY SUPPORT CONTACT DETAILS to be called upon for assistance the following methods of communication will be available to the expedition team members.

Satellite Phone

The team will carry a satellite phone throughout the time spent in the Kangchenjunga region. This will be able to be used at all locations throughout the expedition and will allow us to stay regularly updated with

weather conditions and to be able to contact emergency services for assistance in the event of an accident or emergency.

Mobile Phone

The team will also carry a mobile phone. Although this will not be as versatile as the satellite phone there is limited mobile coverage available in the Kangchenjunga region, which typically extends to all major trekking routes and to exposed areas with high elevation.

Email

By carrying the satellite and mobile phones we will also be able to gain access to the internet and emails. A portable computer will also be carried as far as the base camps to allow for access to the internet.

Base Camp Staff

The base camp staff and liaison officer will have the ability to contact external parties in Kathmandu, such as Dream Himalaya Adventures and the Ministry of Tourism, via a satellite phone located in the town of Ghunsa (one day's walk down-valley). If we exceed our planned time on the mountain (as outlined to base camp staff when we leave for our summit attempt), they can raise the alarm using this phone.

Emergency Beacon

A 406MHz emergency locator beacon will be with the expedition team. In the event of an emergency requiring outside assistance and rescue, the locator beacon could be utilized, either on its own or in conjunction with the satellite phone. This alerts emergency services professionals to the exact location of the beacon and prompts contact with individuals that Paul Hersey has assigned as emergency contacts.

SECTION E: EXPEDITION EQUIPMENT LIST

When listing the various items of expedition equipment the following categories will be used, Expedition Equipment, Trekking Equipment, Communication Equipment and First Aid/Medical.

E1: EXPEDITION EQUIPMENT (Provided by the climbing team)

Climbing specific:

- Dynamic climbing ropes (including spares)
- Prussic cord
- Tape slings
- Crampons
- Ice axes/hammers
- Plastic mountaineering boots
- Insulated over-gaiters
- Rock protection (camalots/friends, wires, hexs, pitons)
- Ice protection (ice screws)
- Snow protection (snow stakes)
- Belay device
- Pulleys
- Climbing harness
- Knife
- Compass
- Whistle
- Carabiners (locking and non-locking)
- Helmets
- Climbing packs
- Climbing food/nutritional supplements

- Climbing stove and cooking equipment

Clothing:

- Base layer (underwear) merino or polypro
- Socks (trekking and climbing) and camp booties
- Gloves (climbing, liners and over gloves/mitts)
- Beanies/balaclavas
- Trekking clothing (light weight pants and shirts)
- Mid layer pants and jackets (fleece/merino/soft shell)
- Insulation layer (down jackets)
- Shell jacket
- Shell pants

Shelter/Sleeping:

- Climbing tents (including spare)
- Bivvy bags
- Climbing sleeping bags
- Base camp sleeping bags (spare)
- Sleeping mats (inflatable and closed cell foam)

Miscellaneous:

- Sunglasses (including spare)
- Goggles / eye protection (including spare)
- Head-torches (including spare)
- Hand held GPS device
- Watches with digital altimeter
- Approach shoes/hiking boots
- Trekking poles
- Water bottles and hydration packs
- Daypacks
- Cameras
- Travel towels
- Toiletries
- Sunscreen
- UV lip and nose protection
- Hand sanitiser
- Lighters and matches as backup
- Cooking equipment (including stove repair equipment and spare parts)
- Fuel for cooking
- Trekking food/snacks
- Maps

E2: TREKKING EQUIPMENT (Provided by the trekking agency)

All of the equipment listed below is provided for the expedition members by the trekking agency, Dream Himalaya, during the treks to and from and while staying at the base camps.

- Tents and shelter
- Cooking equipment and fuel
- All food for main meals, three per day.

E3: COMMUNICATION EQUIPMENT

Refer SECTION D: EMERGENCY COMMUNICATION above for specific details of the communication

equipment that the expedition team will be taking.

E4: FIRST AID/MEDICAL

Refer SECTION F: EXPEDITION FIRST AID/ MEDICATION LIST below for specific details of the first aid/medical supplies that the expedition team will be taking.

SECTION F: EXPEDITION FIRST AID/MEDICATION LIST

During our time in Nepal we will carry with us a specialized medical first aid kit. This will include items to cover general first aid incidents as well as more specific items associated with high altitude alpine climbing. A summary of the contents of the first aid kit is given below.

- Plasters
- Bandages
- Butterfly bandages
- Triangular bandage
- Large compression bandage
- Gauze pads/wraps
- Trainers adhesive tape
- Scissors/Pen knife
- Thermometer
- Needle and thread
- Safety pins
- Rubber gloves (non-latex)
- Mouth-to-mouth barrier
- Pulse Oximeter
- Antiseptic wipes
- Anti-bacterial cream
- Insect repellent
- Calamine lotion
- Cough drops
- Lemsip Flu with paracetamol
- Eye drops
- Sterile eye bath
- Soap
- High factor sun cream
- Sun-protection lip balm
- Electrolyte and Glucose replacements
- Gel shots (simple carbohydrate replacement)
- Emergency 'space' blanket
- Acetazolamide (Diamox) (for use as treatment for AMS)
- Dexamethasone (for use as treatment for AMS)
- Nifedipine (for use as treatment for AMS)
- Mid-strength pain relief (Paracetamol and Nurofen)
- High-strength pain relief (Tramadol and Codeine)
- Antihistamine
- Antacid tablets
- Laxative tablets
- IMODIUM (Loperamide) (anti-diarrheal)
- Ciprofloxacin (general anti-bacterial/anti-biotic)
- Amoxycilin
- Water treatment (chlorine) tablets

SECTION G: EXPEDITION ITINERARY

All of the expedition members will arrive in Kathmandu by the 7th of April 2013. The itinerary for the Expedition is as follows:

7 April 2013	team members arrive in Kathmandu
8-9 April	(2 days) in Kathmandu
10 April	"Expedition Commencement Date"
10-11 April	(2 days) travel to Taplejung via private bus (with one night en route)
12-23 April	(11 days) trek to Anidesha Chuli Base Camp (ACBC) in Ramtang Valley
23 April to 16 May	(24 days) at ACBC or above
17-22 May	(5 days) trek to Taplejung
22-23 May	(2 days) travel Kathmandu by local bus (with one night en route)
24-25 May	(2 days) in Kathmandu
25 May 2013	team members exit Kathmandu

SECTION H: ENVIRONMENTAL IMPACT REDUCTION STRATEGIES

As reference during all stages of the trip, all members of the NZ Anidesha Chuli (White Wave) 2014 Expedition will be versed in the guidelines suggested by a number of important mountain-travel documents. These documents include the U.I.A.A. International Mountain Code, the U.I.A.A. Kathmandu Declaration on Mountain Activities, and the U.I.A.A. Ethical Code for Expeditions.

Given the length of the expedition and the remoteness of the destination, the expedition occupies an important position as being able to positively influence the inhabited and wilderness areas it passes through. To minimize the expedition's impact, a light-weight approach will be taken for the climb. This minimizes the time spent climbing, as well as a lessened reliance upon equipment for the success of the climb. Speed and efficiency will be of key importance. To ensure an absolute minimal impact on the local environment, the expedition intends to leave as little evidence of our passing as possible during our time spent in the Kangchenjunga region. This applies to our time spent on the approach, at base camp and while on the mountain climbing.

By operating as a small independent team we will not require the use of a generator at Base Camp and all cooking and melting of drinking water, for all stages of the expedition, will be completed using portable gas stoves. As a result, no fossil fuels or wood will be consumed throughout the duration of the expedition. In an effort to further minimise the environmental impacts of our stay in Nepal we will assign an appropriate response to the activities of waste, drainage, electrical energy, atmospheric emissions, and management of resources. A few responses include the following:

- Remove all unnecessary packaging from equipment and provisions prior to entering the mountains.
- Remove all non-burnable refuse from the site of all camps, to be disposed of at an approved facility. This will be carried until an available disposal site.
- All human waste will either be burnt or buried in a suitable location away from any waterways.
- When leaving all campsites, they will be returned as near as possible to their original natural state.
- Respect the culture and customs of the local Nepalese that we have interactions with.
- Encourage all locals, porters, liason officer, and other parties to follow best practice in minimising waste and removing rubbish. This may include financial incentives (tips) where practical.
- During descent from our climb, all equipment such as ropes will be removed.
- Use rechargeable batteries with a solar charger. With batteries and other solid waste, bring these back to New Zealand for disposal.
- Minimise water consumption and protect the cleanliness of local waterways.

- Plan the climbing party's nutritional needs accurately, to avoid unnecessary waste from bringing too much food.

The Nepalese Mountaineering Association (NMA) also has in place strict waste management provisions which we must consent to prior to the issuing of any Peak Permit. A requirement of these provisions is that every Peak Permit applicant must pay a Garbage Deposit to ensure that all expedition waste material is removed from the mountain and Base camp areas.

B: EQUIPMENT LISTS

Team equipment

- 60m, 8.2mm half ropes x3
- 6mm cord x 30m
- 13-16cm ice screws x8
- Snow stakes x5
- Snow pig x1
- Wires (1 set)
- Camalot 0.3 to 2.0
- 60cm sling x8
- Snaplink carabiners x16
- Snow shovel
- Spare crampons + long bars
- Spare pack
- Spare belay/abseil device
- 3-person Ozark expedition tents x3 (at base camp)
- Black Diamond Firstlight
- Rab MK-3
- Dry-bags for tent anchors

- Bothy Bag
- Thuraya satellite phone
- Base Camp medical kit
- Mountain first aid kit
- Repair kit
- Binoculars
- Repair kit GoalZero solar charger
- 1:100,000 Map x2
- Bamboo wands x50
- Jetboil stove + pot
- MSR Reactor stove + pot
- Gas canisters x20
- Duffel bags and plastic pack liners and padlocks
- Nepali cash Flags and duct-tape
- NZ, Nepali, and prayer flags
- Camera and computer equipment
- Clothes washing detergent and collapsible basin

Personal equipment

- Climbing harness
- Locking carabiners x2
- Snaplink carabiners x3
- Belay/abseil device
- Prussicks (one lone, one short)
- Lightweight ascending device
- 22cm ice screw x1
- Abalakov threader
- 120cm sling or other anchor attachment
- Helmet
- Whistle
- Crampons
- Ice axe & hammer
- Trekking poles

- 50-70 litre pack
- Foam mat and/or lightweight Therma-rest
- Hand sanitizer
- Insect repellant
- Sunscreen
- Clothing
- Sleeping bag (700g/900g down)
- Sleeping bag liner – polypro and/or silk
- Pocketknife or Leatherman
- Wristwatch
- Sunglasses x 2 and goggles
- Sunblock
- Headlamp
- Spare headlamp
- batteries
- Water bottles
- Pee bottle
- Lighters and/or flint & steel
- Spoon
- Battery chargers
- Toiletries
- Reading/writing material
- Extra copies of all relevant paperwork

Approach Clothing:

- Sneakers and/or light hiking boots + low-cut gaitors
- Lightweight trekking shirt, trousers, shorts and underwear
- Hiking socks x2
- Sunhat
- Sandals
- Thermal top and leggings
- Thermal gloves
- Beanie
- Lightweight rain jacket

- Lightweight over trousers
- Handkerchiefs x3

Climbing Clothing (selected from):

- Double boots, socks x2 and super-gaiters
- lightweight tights
- midweight fleece tights
- synthetic/merino underwear x2
- Lightweight long-sleeve thermal top x2
- Midweight fleece
- Driclime jacket or windtop
- Lightweight synthetic jacket
- Warm down/synthetic jacket
- Salopettes or overtrousers and/or softshell trousers
- Hardshell and/or softshell jacket
- Balaclava
- Woolly/fleece hat
- Selection of gloves (thick and thin)
- Sunhat
- Buff