



**EXPEDITION REPORT**

# **Ganges 1998-'99**

**Ambitious project that brought together scientific, educational  
and design disciplines, centred around a journey by an  
integrated team of able bodied and disabled men and women.**

**Compiled by Suresh Paul FRGS  
Editor: John Matthews**



**Equal Adventure**  
DEVELOPMENTS

**ISBN 1-902316-08-8**

# **Ganges 1998-'99 Expedition**

**Adventure Designs  
Design for Life Centre  
Brunel University  
Runnymede  
Surrey  
TW20 0JZ  
T 01784 - 433262  
F 01784 - 470880  
E [Adventure-Designs-dfl@brunel.ac.uk](mailto:Adventure-Designs-dfl@brunel.ac.uk)**

**ISBN 1-902316-08-8**

# With thanks to

## Friends family mentors and commercial and charitable sponsors

**Every person who is fortunate enough to fulfil their dreams and ambitions on an expedition owes thanks to the sponsors, friends and family who make the opportunities that we choose a reality.**

A team no matter how dedicated, committed, enthusiastic or capable depends on its supporters to undertake an expedition. With the kind support of many individuals, organisations and companies the team reached one of the world's most spectacular locations. The supporters' commitment and belief in our thirst for adventure helped the team to complete the marathon undertaking.

The team recognises the importance of this support. Along the way, connections were forged, projects developed, and objectives accomplished. The team hopes that the supporters of the project, however small, feel part of a movement to promote the benefits of world-wide equality.

### **Thank you for your support**

Abbott's - packaging  
Bedouin UK - mosquito tents  
The Body Shop - washing materials  
Brunel University - Web hosting and overall encouragement  
Camlab Ltd - surface water test kit  
Canolfan Tryweryn - welcome home and support  
Cotsworld Camping - water filters  
Crewsaver (Yak) - canoe clothing and lifejackets  
Cumbrian Industrials Ltd - donation  
Dangerous Goods International - science kit transport  
Dark Peak Marketing - 4 sets of sandals and 3 sets of shoes

Design for Life Adventure Designs – new enabling equipment for disabled adventurers  
Design for Life Centre – office space, PR and marketing support  
DHL International (UK) Ltd – medical kit transport  
First Ascent (North Face) – equipment  
Jessops – photographic equipment  
Mobile Adventure – boats, paddles, dry bags and Peli cases  
The Paul Vander-Molen Foundation – donation  
Random Technologies Ltd – postural support base board  
Salmon Taylor Made Ltd – footwear  
Silva (UK) Ltd – compasses and handheld GPS  
Skystream UK Ltd – emergency signalling devices  
Trans Globe Air Ltd- freight  
United Biscuits – £2500 and wholemeal biscuits, see biscuit menus  
World Challenge Expeditions – medical kits

## **Also special thanks to**

Chris Aldous – donation  
Nicky Bassett – photographs  
Gari Beet – medical training  
Jackie Bennett – specialist medical equipment  
Jim Breen-Turner – donation  
Doug Brown – help packing  
Caroline Brymer – support and accommodation  
Paul Chuter – sleeping bags  
Jaqueline Cocken – WaterAid donation  
Elaine Coles – help packing  
Evelyn De Marco – Wateraid donation  
Bev Dickson – support and sewing  
Franco Ferrero – Technical advice and support during planning and logistical organisation  
Captain M A Gittoes – donation of rations  
Ray Goodwin – coaching  
Hansaben Makanjee – sewing tarp  
Jim McGeogh – Ganges '98 Logo  
Mr & Mrs Mehta – donation  
Anupa Mehta – donation  
Staff at Oaklands Adventure Centre – support for Nuala  
Darren Swift – stoves and water filter  
Jeremy Wakeman – support and advice water quality testing project  
Byron Wifayawardena – media support  
Phil Woodyear – support for Mike King

# Summary

## A team of five men and one woman able-bodied and disabled

**Ambitious project that brought together scientific, educational and design disciplines, centred around a journey by an integrated team of able bodied and disabled men and women that would take six people four months to travel the**

During the team's four months in India it managed to complete the majority of the proposed journey down the River Ganges, experiencing Indian life both on and off the river. The team however was not able to travel the whole length of the river for two main reasons; logistical problems involving getting medical supplies into India for day to day use by the disabled member of the team slowed progress, in addition security problems in Behair during the team's journey made travelling through that region impossible.

The time available for pre-expedition fund-raising for WaterAid was limited as expected, so as a result the post expedition educational activities have concentrated on raising the money and awareness we aimed to generate for WaterAid.

During the fieldwork phase the team collected images, data on water quality, recorded sounds and documented its experiences on a Web site during the travels. The information in its range of formats was then used to support the educational objectives of the project throughout the expedition and post expedition activities.

When measured against its aims the expedition can be said to be a success. The team maintained itself during the journey adapting and evolving to meet the needs of the project in a changeable environment. On two occasions when the team was forced to portage sections of the river that decision was reached for the safety of all members of the team and to ensure the cultural objectives of the project were upheld.

# Background and History

A continuation of the development of integrated expeditions involving disabled people

**A practical continuation of the theme of integrated expeditions, since the Disabled Explorers Conference at the RGS in 1995.**

The Expedition to India and the River Ganges followed two earlier expeditions: to the Coppermine River in Canada's North West Territories and to Israel; each expedition quite separate and distinct in themselves but linked by a common cause - to prove that with proper enabling equipment disabled people can participate fully in the most challenging activities, giving and sharing equally with disabled and non-disabled adventurers.

Following the experiences of the Coppermine River Expedition, there was an obvious need to embrace the new developments that the Adventure Designs project was achieving for canoeists with spinal cord injury.

As a result of the success of the Coppermine expedition, DfL Adventure Designs had designed a postural support system for people with lower limb amputations and had gained a wealth of knowledge of the logistical requirements for an integrated expedition. With money from the National Lottery the Adventure Designs project had been able to develop the Aquabac Postural Support system for people with spinal cord injuries. Extended field trials in Israel had provided a taste of some of the barriers that needed to be overcome in fieldwork projects when including people with spinal cord injury in a fieldwork environment.

Much of the work Adventure Designs undertook following Coppermine and Israel was on moving water safety for disabled people. The Ganges provided

an excellent opportunity to prove the flexibility of the Aquabac not just in Open Canoe and Raft but as an expedition system that could be adapted to support both the travelling and daily living aspect of an arduous expedition. Ganges demanded rafting in its early stages then open canoe for the main river section. The Upper Ganges with its rapids provided a challenge for the design team. The way in which forces are applied to the body when rafting are very different to the way in which forces are transmitted from the water into the paddle through Open Canoe or Kayak. The flexible structure of a raft demands that people with limited sitting balance are held down into the Aquabac as well as supported from the sides and from behind.

During the design and development of the Aquabac we had felt that it was necessary to avoid tying anyone into the support due to the safety issues involved with harnesses and moving and placid water safety. As a result, much of the preparation and training for Ganges was centred around finding a solution to supporting a spinally injured person in a raft to ensure that they were able to play a full part in the expedition.

The research undertaken on the Israel and Coppermine Expeditions focussed on the disabled members of the team. There was a need on the Ganges Expedition to go further and adopt a broader purpose – to add to a full array of assignments to make the expedition meaningful across a comprehensive range of purposeful activities. In that way we would show that the achievement would not only be a victory for disabled adventurers and the equipment used, it would accumulate research material and data, it would contribute to the environmental needs of the area, add appropriate input to the communities we met and, as a whole, would collectively add increased meaning to the idea of integrated challenges and travel in foreign parts. The Ganges team therefore undertook a small water quality assessment project during the journey to provide educational material for the post expedition educational activities and also gathered data on the way in which an integrated team could operate in the field work environment. These tasks would ensure that future integrated expeditions would be able to learn from the project, so continuing the work and exploration undertaken during the Coppermine and Israel expeditions. So Ganges, being much longer and much more demanding physically and mentally in its way than the Coppermine and Israel, took the concept of integrated barrier-free expeditions further along the road to acceptable equality.

# Leadership

## A Personal Perspective by Suresh Paul Expedition Leader

**Being Anglo-Indian has greatly influenced my life. The Ganges expedition represented to me a journey to part of my past that I had hitherto seen only through snapshots and tourist type holiday visits. Taking time to explore this side of my culture has enabled me to balance both sides of my heritage giving me access to a**

The following section outlines some of the personal reasons why the Ganges 1998-'99 Expedition was important to me as an Anglo-Indian from London. The Ganges Expedition was for me a mix of personal and work aspirations; for my closest friends it was obvious that this was a project that I had been working up to throughout my early years.

In addition to the technical and research breakthroughs that set the backdrop to the project, I felt that it was now time to face my roots, to look for the first time at the Continent from which my father originated. During my formative years only a shadow of the colourful land had been available, the rest was up to my imagination. Having travelled and journeyed in many other places I felt that it was essential to tackle the journey that scared me most.

It was to be a journey into a land of which I felt I should have some ownership and some understanding and yet was strangely distant and aloof. I had grown tired of nodding at people when they described their journeys in India assuming that I would know where the places were. Or at least I was tired of then assuming that I should know.

In 1987 my Indian grandmother had passed away. I was lucky enough to accompany my father to India to see her before she died. Some of my strongest memories had been formed during this journey; the smells, the cloth and colour had left a path in my mind that I knew I needed to travel in order to understand my past.

It was in February of 1998 when I was canoeing in Wales at the Canolfan Trewern, when I met Mitesh for the first time. At that time he was working at Plas Y Brenin, the National Mountain Centre. On meeting Mitesh I felt that the project was viable, I also felt that he shared one or two of the concerns that I had. At the time he shared the desire to learn more of India, while also wanting to undertake a journey that would enable him to see India in a way in which he could be himself.

From that point the rest of the team began to gather: Nuala who had already travelled in India on many occasions, Eric a project manager, Mike who had been part of the Israel team and Chippy a canoeist from London.

Experienced expedition planners on popular adventure routes will know that many expeditions become over subscribed – more applicants than there are meaningful or manageable places. Word soon gets around amongst those of appropriate expertise and adventurous spirit who wish to reach new heights in testing their skills. My colleagues and contemporaries on the Ganges adventure will know that integrated expeditions have not reached that stage of popularity. But we are getting there.

The disabled adventurers and able-bodied enthusiasts I have enjoyed travelling with are very special people. They won't mind me saying that they are by the nature of things, often fiercely independent, are often demanding and authoritative from a history of fighting their corner in a hitherto skewed world, and face their own challenges when happily blending into normal perceptions of team activities where the team is content to sublimate individuality in pursuit of the collective objective. Those from a military background often understand the need but may carry some personal baggage into civvie street with lingering memories of rank. The challenges are often within us all.

During the planning stage I found it impossible to consider further any of the personal reasons for the expedition. As a result of the rapid build up to the journey, I took on the Ganges with the team in an almost dispassionate manner. There was no time to sit and stare, the demands of the expedition kept us all busy. On reflection I feel that this was a great advantage. I gathered information and experiences of my time in India that were completely different from the times that I would subsequently spend with my relations. It meant I absorbed my roots then found them for the first time. When with relations it gave me a feeling of family and belonging which I felt had been lost to me. Heading an expedition for the first time had other challenges, we had unforeseen setbacks and disruptions, delays and disappointments.

Since returning to the UK I have enjoyed a feeling of peace and acceptance of my ethnic heritage hitherto denied. I have largely been able to put a one sided view of my world to the test. For me this expedition in particular has set me free not just to undertake new projects but it has given me a silence that makes me stiller than I had been prior to the journey. For me, gaining a

greater understanding of India has set me free in the UK possibly for the first time. As someone who has been brought up predominantly outside the UK's Asian Community, I now feel more equipped to build my life in a multi-cultural setting.

For me as an Anglo-Indian the dichotomy will always be there. One's identity does not stop growing overnight. However, accessing both sides of my heritage is something that I feel I have been privileged to do. Having some tangible experiences in India has made it easier to accept the strengths and weaknesses of both cultures.

A final thought, not really relevant in a quasi-technical report or would be scientific report but possibly relevant to the odd sociologist or psychologist who may chance upon these pages. Deep down I have a sneaking suspicion that the inquisitive amongst us, explorers and adventurers, frontiers folk, puzzled and ideas people, who spend their time asking questions and challenging the status quo, and maybe those for whom the parapet is there mainly to put their head over to see what is on the other side, may well have a role. So I thank those who have had much influence on me and my view of the world: Mahatma Gandhi, Jawaharlal Nehru, Winston Churchill, Martin Luther King, Nelson Mandela, Lord Hunt, Nigel de Winser and the RGS, Operation Raleigh and my parents and my brother and sister the two thirds of the Paul family triplets.

The journey has now just begun.....

# Contents

With Thanks To

Summary

Background and History

Leadership

Contents page 1

Aims and Objectives page 4

Expedition Image and Promotion page 6

Community Relations UK page 9

Why WaterAid page 11

Preparation page 12

Rafting Preparations page 16

Risk Assessment and Crisis Management page 18

Supporting an Integrated Team page 20

Community Relations in India page 23

Leadership page 25

Foundations for Future Projects page 27

Donations page 28

Pre Expedition Team Training page 33

Graphical Overview page 35

The Account page 36

Key to Maps & Charts page 37

Section One page 38

Delhi to Snow Leopard Camp Field Report

Rafting Diapreg to Rishikesh Field Report

Rishikesh to Haridwar Field Report

Route Card

Maps

Section Two page 47

Boxing Day Field Report - Return to Mother Ganga

New Years Eve 1998 Field Report - Late Night Rescue and  
New Friends

Hasanpur Field Report - A Musical Shelter From a Storm

A Womans Perspective Field Report - Indian Village Life by  
Nuala Mulholland

Route Card

Maps

Section Three page 63

To Portage or Not to Portage Filed Report - Slow Progress  
Creates Conflict

Portage Field Report - Anupshur to Fatehgarh

Fatehgarh to Delhi Field Report - In Search of medical  
Supplies

Fatehgarh to Allahabad Field Report

Route Card

Maps

Section Four page 81

Indian Canoe and Kayak Association Water Rally - Allahabad  
Field Report

Allahabad to Varanasi Field Report

Difficult Decision - Deliberations at Hotel De Paris in Varanasi

Route Card

Maps

Section Five page 92

Lightweight Push Field Report - Attack and Hospitality

Behair Portage Field Report - A Journey down the GT (Grand  
Trunk) Road to Calcutta

Route Card

maps

Section Six page 113

The Journey to Farakha Field Report - The Last Truck Journey  
back Upstream to the Start of the Final Section the Hugli

The Hugli trip Field Report

The Final Stage Barrakpur to the Sea Explorers Institute Field  
Report

Route Card

Maps

Science and Field Research page 126

Water Quality Testing

|                                         |          |
|-----------------------------------------|----------|
| Equipment Assessment                    |          |
| Recommendations for Disabled Travellers |          |
| Psychology Report                       |          |
| Medical Report                          | page 153 |
| The Interpreter                         | page 157 |
| Expedition Logistics Report             | page 159 |
| Staying in Contact                      | page 160 |
| If We Had Our Time Again                | page 161 |
| Navigation                              | page 164 |
| On Return                               | page 165 |
| What Next                               | page 166 |
| Appendices                              | page 167 |
| Canoes and the River                    |          |
| Equipment                               |          |
| Repairs                                 |          |
| Finance                                 |          |
| Endpiece                                |          |

# Aims and Objectives

A summary of our collective hopes and concerns for the journey through India

**An integrated team making a journey from source to sea of the mighty River Ganges by open canoe, which became a 1200 - mile journey over four months, 3 canoes, 6 participants .**

## Aims

- to travel 1200 miles along the River Ganges in open canoe and white water raft;
- to raise of money for the charity WaterAid (reg charity no.288701);
- to facilitate Educational Tours
- evaluate innovative equipment including the AQUABAC postural support and field toilet by DfL Adventure Designs.

## Objectives:

- to raise awareness of the necessity for sustainable clean water supply world-wide;
- to increase appreciation and respect for the environment;
- to promote positive cross-cultural role models for young people in India and the UK;
- to promote disability awareness and enabling design solutions in the UK & India;
- to promote International technology transfer;

to strengthen Anglo/Indian relations, through paddle sport.

## **The challenges to the team during their 1200 mile journey were set as follows:**

fund raising for the expedition and WaterAid (reg.charity no.288701);

coping with a wide range of climatic conditions, from extreme cold in the Himalayas to intense heat in the plains;

negotiating environmental factors such as wildlife and changing water levels;

staying fit and healthy on a river that is heavily polluted;

managing physical, psychological and team aspects of a 1200 mile journey;

dealing with cultural issues, local traditions and customs;

relating to the people, for whom this river is the centre of their world, their life support system, meeting place and main highway with religious significance;

showing our interest in the worlds of those we meet, respectfully learning from their cultures;

exchanging information, equipment, material & technology and testing products in sensitive and appropriate ways.

## **The Journey**

The aim of the journey was to navigate approximately 1200 miles of the River Ganges, starting at Diapreg, its navigable source, and ending at Calcutta, in the Bay of Bengal, 90 days later.

The river starts in the Himalayan Range and travels through a vast array of scenery, different cultural traditions and places of historic and religious significance.

For many pilgrims the Ganges is considered to be the most holy river in India. Our journey would take us from beautiful wilderness to some of the most densely populated areas of the world.

# Expedition Image and Promotion

How we endeavoured to present the aims and objectives

**The image and structure of a project are two of the keys to laying the foundations for a successful project. Without a clear structure presented in an appropriate manner it is impossible to share ideas, and change a pipe dream into a shared vision and then**

## Introduction

In the same way that good leadership is invisible, so good promotion and marketing is invisible. All the public and those outside the marketing of the project see is the project itself, as a seamless machine. For this to happen it is essential to present the project in an appropriate context. For the Ganges project much of the presentation material was put together in black and white to ensure that the image of the project did not overpower the development and environmental issues with which the team were concerned.

## Promotion

During the preparation for the project the team used a brochure and printed letter head to present a clear image to potential sponsors. The project was presented to sponsors as an ideal vehicle to promote a number of equity issues.

*The team represents unity through canoe sport regardless of race, gender, ability and disability. The international element of this expedition is relevant to the education and empowerment of young people in both the UK and India.*

In addition to the equality issues the team presented the need for clean water for all, raising awareness for WaterAid.

*By travelling along the river, the team hopes to increase awareness of the need for a clean and sustainable water source as a basic human right, in doing so the team will raise money for WaterAid (reg. charity no.288701).*

During the genesis of the project the team felt that using sport as a vehicle for the presentation of both social and environmental concerns made it possible to provide a positive image of disability in a setting that would highlight the environmental issues. This was another way in which the team endeavoured to present a fresh and positive image of an integrated team.

## **Looking after Sponsors**

For many sponsors the need for some tangible pay-back may be greater than their sympathetic support for the aims and cause of a project. That maybe shareholder or management driven if it exists at all. We accepted that some benefits to sponsors should be recognisable for some, for their support publicity, and for some it is equipment evaluation, having a web site maybe has meant that sponsors have gained exposure throughout the fieldwork phase. However dealing with sponsors in return requires as much work as the preparation phase. With external commitments, balancing time can sometimes be difficult.

Prior to departure main sponsors' support was highlighted through main media channels including television and press and radio. During the expedition the team used the Internet to support the sponsors needs.

The hardest jobs that the team have faced has been completing the post expedition activities. Saying thank you to sponsors, finalising accounts, post expedition publicity and report writing.

Once the team has broken up and moved on their lives move on too. Knuckling down to the essential business of writing up the project becomes a demanding challenge in its own right - every bit as important as the expedition itself but in some ways harder and more demanding because of the disciplines and concerns involved.

## **The Internet**

One of the most successful elements to the PR and marketing machine was the expedition web site that was supported by Richard Mitchell of Brunel University's print room. At the end of the expedition the web site had received well over 1000 visits from all around the world. The website provided

an opportunity to provide exposure for sponsors and supporters and WaterAid as well as providing an informal link for the team to friends, family and those eagerly awaiting the start of the post expedition education tour.

# Community Relations UK

## Community based Education

**The main emphasis for the educational elements of the project was to raise money and awareness for the charity WaterAid whilst at the same time promoting the inclusion of disabled people into mainstream society, including expeditions and**

The aim of the project in the UK was to raise awareness and finance for the development of clean water facilities for people worldwide. From the start the team felt that it would be very difficult to gain sponsorship prior to departure due to the logistical and associated equipment developments that needed to take place to make the integrated journey possible. There simply was not enough time to complete all the essential tasks and create the necessary equipment and gain corporate sponsorship/support to make the expedition possible and still have time to undertake individual sponsorships and fundraising for the charity. As a result the team planned to undertake an educational tour following its return from the fieldwork element of the project. The educational tour would become the charity fundraising activity.

During our preparations we gained a modest amount of publicity mainly through exposure from Carlton's Asian Eye Programme which enabled us to tell the story and help promote the work of WaterAid. Articles were also published in canoeing and watersports press, University and local regional press to the team. On our web site we included a section that invited people to book a visit and talk on our return.

The website was also designed with a simple layout to make it possible for individuals, schools and community groups with even the most modest of equipment to enjoy the interactive element of the project.

Since returning, the team has been working on the education tour. A number

of talks will encourage schools and youth groups to raise money for WaterAid. The aim is to pro-actively involve young people in the fund-raising process to ensure that the educational element of the programme continues over a period of time rather than touch upon it as an isolated educational experience.

# Why WaterAid

Clean water is a basic human right regardless of disability

**As we came to experience, for many in India the idea of water as something that they can take for granted is far from a reality. For many of the team the communal pumps and our daily obsession with clean water is one of the strongest memories of**

As we formulated the plan for the project during our early meetings on the side of a river in North Wales, our awareness of the issues confronted by people in the developing world grew as we considered and investigated the Ganges and the way of life of those who share its banks. Water seemed to play an immense part in the day-to-day living of local people. As watersports enthusiasts we were all very aware of the way in which we use water. The team hoped that its support for WaterAid would in some way assist those with whom we shared the river and its banks.

The UK educational-based elements of the project were aimed to raise finance for and awareness of the charity WaterAid. To avoid placing additional pressures on the team during the preparations we aimed to initiate the educational programme and fund-raising efforts following completion of the journey. The team felt that it would then be able to separate our message from that of standard fund-raising, telling a real story involving real people rather than presenting an abstract concept in a similar format to other fund-raising projects.

The disadvantage of this was not being able to provide a face-to-face vehicle to encourage people to become part of the expedition prior to its departure. We countered this weakness by setting up an internet page at Brunel University. In addition during the run up to the team's departure press releases were sent to many sectors of the press.

# Preparation

## Research, planning and preparation

**Phone calls, letters, faxes, meetings, administration often forms a greater part of the project than the execution of the fieldwork phase.**

### Introduction

It took the team just over one year to prepare for the journey.

### Research and route planning

The following information sources were utilised by the team during its preparation

Royal Geographical Society - Expedition Reports  
Slowly Down the Ganges - by travel writer Eric Newby  
World Wide Web - Searching for Ganges or Ganga  
Indian Canoe and Kayak Federation - Delhi  
Discussions with Colin Broadway - Mobile Adventure  
Contacts in India, mainly developed through the Indian Canoe and Kayak Federation and Colin Broadway

### Insurance

A number of insurance policies were considered, but due to financial constraints it was not possible to fully insure all elements of the freight, however no major loss was incurred by the team. We found that many insurers are reluctant to issue policies covering water craft for journeys of this nature. Each team member took out individual insurance for themselves and most prized equipment.

## International Freight

The freighting of expedition equipment and medical supplies from the UK to India was achieved in three ways, with the generous support of four companies;

With the help of the freight forwarder Transglobal, and with the protective bubble wrap produced by Sealed Air Products the team packed the three 17ft Canoes with river equipment. With copious amounts of industrial bubble wrap and packing tape the three items were sealed in the Transglobal compound at London Heathrow.

DHL delivered all the specialist medical supplies efficiently picking up medical packages from the Expedition office at Runnymede for delivery to the team at different points on the river.

Dangerous Goods International accepted and packaged the scientific equipment for collection by the team in Delhi.

All three elements of the supply chain would not have been possible without the generous support of DHL, Transglobal, Dangerous Goods International and the bubble wrap from Sealed Air Products. In addition to the generous support in the UK the Indian freight companies including DHL India and Brymer Laurie - New Delhi made it possible for the team to clear all of the equipment and supplies through the complexity and bureaucracy of Indian Customs and Excise.

The unusual nature of our equipment and the purpose of our journey presented challenges to carriers and customs. The fact we were donating some of our equipment and using other items during the journey created interest and debate as what constituted imports as such, what were personal effects for the team as a tourist group, which items being tested had to return with us, and the need for extreme care with specialist medical supplies invariably caused debate and delays. Not all the shipments went direct, some were transhipped as airlines must via a variety of hubs for lower carriage rates, endured exciting routings and some puzzling delays.

But our expectations were more from our inexperience in the complex but ultimately efficient world of air cargo consignments. Our need to get away from Delhi into the Himalayas and the source of the river was delayed by public holidays, a customs and civil service strike or work to rule and other unforeseeable complications. At one point when a particular consignment could not be located DHL magnificently offered to fly a replacement package out with a special courier to ensure we had all we needed. Miraculously the missing package was located in a warehouse and cleared without punitive duty charge with no need for the special courier.

## **Packing**

The physical packing of expedition equipment and personal possessions was dependent on the requirements of the carrier. Much of the expedition equipment was simply bubble wrapped. Dry bags and packing tape provided adequate protection for the personal equipment carried with the team. Cardboard cartons were used to pack the medical equipment with only the small loss of two packs of rubber gloves.

The contents of each package was listed and equipment was photographed prior to being sealed. Copies of lists and photographs were kept in both the UK at the Expedition Office and with the team in India.

## **Pre Expedition Medical**

All team members took advice from their doctors prior to departure to ensure that the relevant inoculations were taken. Each team member was asked to sign themselves off as fit to travel. Dental checks were made to ensure that minor irritations did not become a major problem in the field.

## **Crisis management and risk assessment**

A consultation document was prepared during the early part of the preparation process which was then used as a basis for discussions with a number of experienced Canoeists and Explorers. The document outlined the organisational structure in the event of an emergency, and course of action in any eventuality.

## **Permissions - India**

Permissions were sought prior to departure from the Indian Canoe and Kayak Federation. During our initial dealings with the Federation it was stated that no permissions would be required to travel the Ganges. Any future expedition should check with both the India Canoe and Kayak Federation and Office of Tourism if in doubt, if only as courtesy.

Additionally the team sought the approval of Brunel University, to ensure the support of the Adventure Designs Project, Water Aid to ensure that the larger issues represented by WaterAid would not be damaged in the unlikely event of a crisis.

During the final preparations the team contacted the British High Commission in India. Additionally the team delivered a package to the High Commission in New Delhi with the details of the expedition team our proposed itinerary, medical requirements and aims and objectives.

## **Press and Public Relations**

National, local, disability and sporting press were contacted with a press release prior to the team's departure. At regular intervals the expedition office sent out press releases giving an account of the expedition to that point. Sponsors were contacted similarly. All concerned with the project were contacted including sponsors, friends and family thanking them for their support and providing a contact point for the project in the UK. All were sent a signed map of the journey as the team departed. Regular press releases were sent out during the journey to both press and sponsors.

# Rafting preparations

## Choosing a Rafting Operator sympathetic to the needs of the team

**Using a raft on the top section of the river enabled the team to paddle the river as a team maintaining the integrated approach; this also provided an additional element to the Adventure Designs field trials.**

### Rafting Preparations

The rafting element of the project presented technically probably the greatest demands on the team and its equipment. Whilst in Delhi time was taken to consider the opportunities available for white water rafting and to review the services, styles and prices offered by the rafting companies.

Two main options presented themselves:

The Indian Canoe and Kayak Federation

Snow Leopard Adventures

Both are reputable organisations. The choice was made taking into account the following factors:

Finance – with a tight budget the team went for the most cost-effective option.

One of the most important factors that needed to be taken into account during this phase was the competence and enthusiasm for our aims shown by the Raft Guides and the Rafting Company's understanding of the specific needs of the disabled members of the team. Following an initial meeting with both companies it was felt that Snow Leopard was most appropriate for our needs. It was a difficult decision. The rafting section was completed successfully and

provided valuable feedback on the function of the AQUABAC.

The Snow Leopard team were briefed on the AQUABAC and were involved along with the Expedition team with the rigging of the AQUABAC attachment system and the quick release harness.

# Risk Assessment & Crisis

Our support network in the event of a major crisis to help the team and friends, relatives and sponsors

**Remaining flexible makes it possible to overcome many problems. The team was fortunate not to need external medical assistance, however our success in the field was made possible by the continual logistical efforts of supporters and sponsors in the**

## **Extracts from the expedition planning document:**

### **On Site**

Help and support will be available from the Indian Canoe and Kayak Federation

Expedition will liaise with local community en route for ad hoc needs

Hotel accommodation has been pre-booked at intervals along the route for the expedition members to rest and recuperate and reorganise resources as necessary, to take on new supplies and to undertake local teaching and training to promote the mission objectives.

### **In the UK**

Two sources of support: Brunel University at Uxbridge and Runnymede Campuses and Franco Ferrero:

# Brunel University

## Runnymede and Uxbridge Campuses

Available to serve Media and Public Relations

Ensure that general public are informed of the expedition's progress.

Support sponsors as required.

Be a contact point for family and friends.

## Franco Ferrero

### Pesda Press, North Wales leading canoe authority and coach, and training text book publisher.

To provide technical support and advice to the Expedition

To provide and marshal support as necessary during a crisis

Support if necessary the team in an evacuation

Provide independent evaluation for the team's emergency plans and logistical support as necessary

Supply technical interpretation, support and analysis for Brunel University as required

Provide authoritative interpretation and support for the Expedition's progress

## East West Medical

East West Medical are a commercial organisation based in Delhi who provide medical evacuation and emergency hospitalisation for those with medical insurance. The company specialises in caring for travellers in East Asia.

The link with East West Medical was set up on arrival in India to support any major medical requirements that the team may have during the fieldwork phase. Assistance from East West Medical would only be sought by the team in the instance of needing to hospitalise or evacuate one of the team, as the result of a trauma or prolonged illness.

# Supporting an Integrated team

A person-centred approach ensures that the needs of the team are met regardless of disability

**Providing a stable environment for a team enables all involved to goal set, making it possible for an individual to maintain their focus throughout an extended project.**

## Introduction

One of the aims of the expedition was to ensure that all members of the team were equals. Although this was achieved largely during the planning and execution of the expedition the specific considerations have been highlighted following a team de-briefing and in the hope that the team's experiences will help those concerned with the implementation of future integrated projects.

One of the team, Mike, 29-year-old paraplegic required a range of sterile medical supplies for daily living as well as using a postural support to gain sufficient control in both the open canoe and raft.

## Specialist Equipment

In addition to the general preparation for the fieldwork phase of the project, the following issues were addressed by the Adventure Designs team at the Design for Life Centre prior to departure, to ensure that the needs of those team members with spinal cord injury were fully supported:

Adequate support and pressure protection whilst canoeing;

Quick release support harness whilst rafting, this involved trials at the Canolfan Tryweryn, the Welsh National White Water Centre.

Acquisition and preparation of a personal care box that contained medical supplies sufficient for at least two weeks, suitable for use either in the field or of sufficient standard so that they would be able to be used in a hospital environment – the box was intended to travel with the casualty throughout the chain of care until the casualty was received by UK medical personnel.

## **Pre expedition preparation**

Mike undertook discussions with his doctor and district nurse, and gained a range of medication to cater for his specific medical requirements.

Letters from doctors identifying the medical supplies and stating that they were for personal daily use were gained to show to customs and in case of query en-route.

## **Specialist team training and awareness**

All members of the team were briefed on methods of catheterisation to ensure that an indwelling catheter could be placed in the event of Mike becoming unconscious.

## **Personal Hygiene**

Mike worked with the Adventure Designs team to develop a Porta Loo that he would be able to use on the field work section of the project.

Mike acquired a urine bottle and a small belt bag that would carry this bottle, also a daily supply of catheters, rubber gloves and 'Instillagel'. He was able to carry sufficient supplies to meet his needs during the day without having to open his personal care box.

Great care was taken to ensure that the medical supplies were kept in the best condition possible.

Mike chose to use latex gloves during all aspects of his toileting to reduce the likelihood of infection; this worked well.

Holister self-lubricating single-usage catheters were chosen to reduce the number of preparatory operations required in the field. Their main advantage was that they maintained their sterility prior to use due to the packaging.

**The aim was to place spare equipment throughout country where we had rest breaks planned, combined with back up medical drops to ensure that the needs of the disabled member of the team were met on a daily basis. It did not always work.**

## Specific Logistical Backup

On arrival in India Mike located a supplier of catheters to ensure that he was able to meet his daily needs regardless of delays in the pre-planned supply chain where courier – shipping company – airline – import agent – customs – handling agent are all expected to provide a seamless and timely consignment as and when required. But however good the proposed schedule, we were not prepared for public holidays, individual disputes and a wonderful lack of urgency about any service on the Sub-Continent.

During the time in Delhi we reviewed the route once more and assessed it with the benefit of local knowledge to ensure that evacuation plans were appropriate.

During our initial meeting with East West Medical Mike made the medical team aware of his specific needs should the need arise for a medical evacuation.

The carriers of the international flights were informed of the needs of the team prior to departure. On this occasion the provision of facilities seemed to change little.

A spare set of crutches were sent with the medical supplies to Patna. This allowed Mike a change half way through the journey. Unfortunately due to political instability, the team were unable to collect this package; this change made it necessary to undertake field repairs to Mike's NHS crutches so that he was able to complete the final stage of the journey.

# Community Relations in India

Forming links with  
canoeists adventurers and  
educators

## Community Relations in India

**The people make up the rich and colourful canvas enjoyed by the team. They enriched our lives. The team hoped that its respectful and open attitude meant that in some small way we added to the experiences of those with whom we shared the river.**

During the field work phase of the project the team enjoyed creating new relationships with a number of communities, groups and individuals that made our time in India even more fruitful. We would like to thank here all those whom we met during our time in India for their kindnesses and for their help and hospitality. Although it is impossible to name them all we have included a list to illustrate the breadth of experiences that we shared:

Indian Canoe and Kayak Federation

The participants of the Varinasi to Allahbad water Rally

The Sea Explorers Institute in Calcutta

Snow Leopard Adventures – Ajeet Bajaj

The residents of Hasangari

The School and Headmaster of Musthafabad

The staff at the guest houses where we stayed in  
Delhi, Haridwar, Kanpur, Varanasi, Calcutta

The Holy men and Disciples of the Temples that we were lucky enough to rest in

The school for the deaf in Calcutta

Community groups and the YWCA in Calcutta

Avinash Kohli, President of the Indian Canoe and Kayak Federation

Major Bhindra of the Indian Canoe and Kayak Federation

The Paul Family in Delhi and Calcutta

The Department of Tourism in Varanasi

Snjay Tiwari of Farookabad

# Leadership

## Co-ordinating and supporting a group of highly skilled individuals

**Maintaining lines of communication within a small close group over an intense period was challenging; ensuring that all of the team maintained ownership of the decision making process was complicated.**

The Ganges '98 Expedition team consisted of a group of highly skilled and experienced outdoor practitioners. The co-ordination and leadership of this highly motivated and highly independent group presented a challenge even to the most experienced leader. The need was not to educate and inform but to co-ordinate and ensure that the individual team and task needs were balanced in such a way that the team would be able to complete their four-month journey together, happily.

During the majority of the fieldwork phase of the expedition the team elected to take a person-centred approach to the project to an extent placing the aim to journey down the river as secondary. However, during the final stage of the river the team elected to take a more task oriented approach. From learning to cope with our situation and working together enjoying each day became the challenge. Then a noticeable change in attitude to beat this thing and make it to the end took over. Both approaches although very different presented similar problems: language, culture, and the continual shift of the Indian social political setting made it essential to maintain a fluid and patient approach at all times.

One of the greatest tasks was to ensure that all the needs of the members were met. Even within a team each team member has their own "language" that one needs to understand to ensure that personal and emotional needs are met. Balancing needs and adapting them to the fluid Indian environment was the greatest challenge. Mitesh and his grasp of Hindi combined with his commu-

nication skills was often in the forefront ensuring the team's needs were met. Without his smile and grasp of Hindi the team would not have got out of Delhi. The role of interpreter was a key function in making things possible.

In addition to my co-ordination and facilitation role there was a need to ensure that the integrated nature of the project was maintained, balancing this with the other strands of the project. The logistical difficulties faced by the team in accessing the planned medical drops coloured the decision making process, often forcing changes of plan at the last minute.

The Ganges '98 Expedition presented the largest leadership role that I have undertaken in the fieldwork environment. I am grateful for the support and encouragement of the team, without which the project would not have been possible, and pretty meaningless too.

# Foundations for Future Projects

The team aimed to lay the foundations for future inclusive projects in India

**Permits and a partnership with Indian organisations made the journey possible. India is increasingly aware of the need to cater for tourists, for it is a wonderful tourist experience offering great value for money. But there is a need for eco-tourism which helps local communities. Access to basic amenities remains a consideration.**

## **Laying Foundations for Future Development and Canoeing Partnerships**

In addition to the cleaning, sorting and donation of equipment at the end of our expedition the team undertook some coaching in open canoeing with local watersports enthusiasts and had meetings with representatives from the West Bengal Canoe and Kayak Federation to ensure that future canoe or kayak-based collaborations are successful.

## **Integrated Projects and Expeditions in India**

In conjunction with the Department of Tourism for West Bengal the expedition team looked at ways of providing more support and guidance for disabled travellers and expedition fieldwork members in India. The Adventure Designs team, at the Design for Life Centre Brunel University, will be collating the results offering suggestions.

# Donations

## Donations of equipment and supplies to Non Governmental Organisations following completion of the Project

**The team donated expedition equipment and supplies to a range of humanitarian organisations in India, to ensure that support from sponsors, friends and family was in some small way of benefit to the India we met.**

Following the expedition, equipment was donated to organisations in India to support humanitarian work, help environmental education and to develop canoeing in India.

### **The Sea Explorers Institute - Scientific Test Kit**

The Sea Explorers Institute has a basic but comprehensive lab that is able to test the water and ground material quality of a sample across some 30 parameters. As a result of the generosity of Camlab Ltd and Dangerous Goods International the team has been able to add an extra dimension to its involvement with the Sea Explorers Institute

2 Buckets used for Sample Collection

1 Face Shield

1 Plastic Ground Sheet

1 pH Meter

1 Electronic Thermometer

1 Large Syringe

The Test equipment donated to the Institute will enable the scientific teaching staff to instruct the Institute's students on ways of testing samples in a more mobile way using the Colour Comparison Method. It is not anticipated that the new equipment will replace the equipment already used by the institute, however the Camlab Ltd equipment will increase the range of test methods for the students to gain familiarity. The donations were formally made on 16 03 99 and the equipment was accepted by the Institute's Academic / Scientific Staff on behalf of the Sea Explorers Institute.

#### **Science - Water Quality Test Equipment**

Phosphate Test Kit

Reagent Powder & Colour Disk

Instructions

Free Chlorine Test Kit

Reagent Powder & Colour Disk

Instructions

Total Chlorine Test Kit

Reagent Powder & Colour Disk

Instructions

Nitrate Test Kit

Reagent Powder & Colour Disk

Instructions

Ammonia Test Kit Reagent Powder & Colour Disk

Instructions

Biological Oxygen Demand Reagent Powder & Colour Disk

Instructions

#### **General Expedition Equipment**

1 Plastic Waterproof Daren Drum

1 Boat Repair Kit

2 Metal Food Boxes

10m of Floating Line

For further information about the Sea Explorers Institute:

Mrs Shulie Chatergie, The Sea Explorers Institute  
Outram Ghat, Calcutta, 100021,  
West Bengal, India

## **The Indian Canoe and Kayak Federation - Canoeing Equipment**

Thanks to the generosity of Colin Broadway of Mobile Adventure (who is already widely known in India) the expedition team handed over the following equipment to support the development of canoe and paddle sport in India.

3 Boats

12 Paddles

6 Seat Covers

For more information about the Indian Canoe and Kayak Federation:

Avinash Kohli President  
Indian Canoe and Kayak Federation  
606 Akash Deep -6th Floor  
Barakambra Road  
New Delhi  
110001

## **Sea Kayak and Adventurers Club - Calcutta Camping Equipment**

Thanks to the generosity of Bedouin Tents and Colin Broadway the expedition team have been able to support the development of a new organisation in India - The Association of Sea Kayakers and Adventurers, based in Calcutta. The new organisation will be concentrating on the development of sea kayaking initially around the coast of West Bengal.

4 Bedouin mosquito Tents

3 Waterproof Darren Drums

For further information about the Sea Kayak Adventurers Club

Please contact the Indian Canoe and Kayak Federation Delhi

Address as above

## **SWADHINA - An Organisation for the Self**

## Reliance of Women in India

The following information is taken directly from the SWADHINA'S literature.

Swadhina is primarily a women's development organisation established about a decade ago and is registered under Registration Act and Foreign Contribution Regulation Act of Gov. of India.

Since inception Swadhina has been specifically engaged in the creation of awareness among women on women's issues and taking up small village level action programmes enabling empowerment and self reliance of women committed to non-violence and decrying all forms of violence.

We believe that women's organisation has a three-tier approach:

Identification of issues relating to women at the micro and macro level.

Awareness training and formation of women's groups around those issues, initiate participative self reliance efforts.

Handing over the organisational and functional work of these people based groups.

On these lines of development interaction we are working in four states of the country where Swadhina has her full time co-ordinators; #61623; Tamil Nadu 20 villages, #61623; Orissa 80 Villages spread over in 3 districts #61623; W Bengal 5 Villages #61623; Behair 20 Villages

Swadhina works through over 150 village women's groups and also through 202 non formal educational centres which also act as action centres. It also conducts field level training on skill enhancement, the value of peace, education and development orientation for other organisations.

The equipment listed below was donated to the above organisation to help them with a child project which aims to teach children to look after themselves in a collaborative way.

### **Camp Kitchen Equipment and Stoves**

3 Plastic Food Containers 15 Litre and Bucket

2 Indian made Kerosene Stoves (including spares)

### **Kitchen Utensils including:**

Set of three nesting Field Pans (Aluminium)

Pan Handles

Cutlery and Spatulas

Rolling Pin Board

Kitchen Knife

Sieve

6 Steel Plates

6 Steel Chi Mugs

6 Pyranah 'Paddle the River Mugs' (Plastic)

**Expedition Rations**

The remainder of the non-perishable food was also donated after a thorough sorting!

For further information about SWADHINA

Ms. Saswati Roy / Supta Mukherji

Swadhina

34 /C Bondel Road

Calcutta - 700019 INDIA

Phone 0091-33-2470934

Fax 0091-33-2470934

# Pre-Expedition Team Training

## Water Safety, First Aid, Injury prevention

**During the preparation of a project it can be difficult to maintain personal fitness. The demands of the logistical and organisational aspects of the project often tie you to a desk for long hours. Our training centred on prevention of injury.**

The following section outlines the practical-based training that the team undertook to ensure that they had the river and expedition skills necessary to complete the expedition.

River based training on the Treweryn and Conway

Swift Water Rescue Training Level 1 and 2 at the Canolfan Treweryn

Two members of the team attended and passed SRT Instructors course.

The majority of the Ganges is flat water. In preparation for this aspect of the expedition the team were lucky to receive one day's coaching by Ray Goodwin. A level 5 Canoe and Kayak Coach, during this element of the training the team looked at injury prevention and energy conservation. In addition to the paddling techniques the team looked at ways in which improvised sailing rigs could be constructed using the open canoes, the expedition shelter sheet and canoe poles.

All of the team despite already being first-aiders undertook a refresher shortly before departure to ensure that they were familiar with the medical equipment and the specific hazards that the environment presented and that they were all conversant with current first aid procedures.

During the final stages of the preparation process the team undertook a psy-

chological evaluation to help cement the cohesiveness of the group. The aim of the session was to equip the team members with the social and mental tools required during fieldwork phase.

## **NOTE**

The Adventure Designs project at the Design for Life Centre Brunel University supported all aspects of the practical training with specialised equipment, training and advice to ensure that all members of the team were given the same level of opportunity to participate.

## **Seminars and Training Events Attended by the Team**

Explore 98 -The Annual Explorers Conference at the Royal Geographical Society, all aspects of expedition planning were covered during the seminar allowing the team access to the Society's information sources in addition to providing face- to-face access to some of the world's most experienced scientific and adventure explorers.

Packing and logistics meets were held in addition to the practical based training.

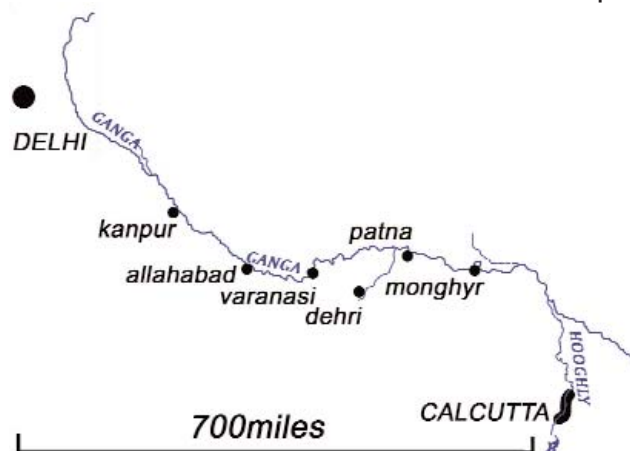
# Graphical Overview



Map 1. United kingdom to india



Map 2. india



Map 3. the Ganges and Hooghly Rivers

Maps 1 & 2 Extracted from **Philips New World Atlas 3rd Edition 1980**

# The Account

## The Account of the 1998-'99 Ganges Expedition

**Each team member took different experiences from their time in India. This collective account tells the story of the team's four month journey through India down the Ganges.**

What follows are the actual daily reports prepared by members of the team as the journey progressed. These were E. mailed every time we reached a major town with E.mail facilities back to our web site co-ordinator, Richard Mitchell of Brunel University Print Section.

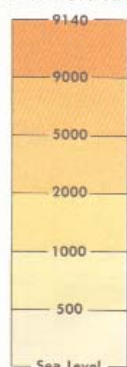
The reports tell the story of the journey in the team's own words, as it happened. Careful readers will recognise that as the expedition progressed the reports included more detail and gave grid references and a more colourful appreciation of our environment and the people that we met en-route. We settled down to the reality and scale of the expedition following the early excitement and exceptional logistical demands the team overcame to get itself and the equipment to the head of the river.

The brief summaries and explanations at the top of each E.mailed section are written by expedition leader Suresh Paul, on completing this report, to assist the reader.

## ELEVATION CONVERSION

| Feet   | Meters |
|--------|--------|
| 30,000 | 9,000  |
| 28,000 | 8,530  |
| 26,000 | 7,920  |
| 24,000 | 7,310  |
| 22,000 | 6,700  |
| 20,000 | 6,090  |
| 18,000 | 5,480  |
| 16,000 | 4,870  |
| 14,000 | 4,260  |
| 12,000 | 3,650  |
| 10,000 | 3,040  |
| 8,000  | 2,430  |
| 6,000  | 1,820  |
| 4,000  | 1,210  |
| 2,000  | 600    |
| 0      | 0      |

## ELEVATION TINTS



## CONTOURS

Basic interval 500 feet  
Intermediate contours shown only at 250 feet and 750 feet  
Dashed contours indicate approximate relief

## SPOT ELEVATIONS

|                                              |       |
|----------------------------------------------|-------|
| Accurate Elevation                           | .0000 |
| (Elevations are accurate to within 100 feet) |       |
| Critical Elevation                           | .0000 |
| Questionable Elevation, (none shown)         | x0000 |
| Location Undetermined, (none shown)          | 0000  |
| Lake elevation, (none shown)                 | 0000  |
| Stream elevation, (none shown)               | 0000  |

## CULTURE

|                             |       |
|-----------------------------|-------|
| Dual lane (divided) highway | ===== |
| Primary road                | ===== |
| Secondary road              | ===== |
| Multiple track R.R.         | ===== |
| Single track R.R.           | ===== |
| Power transmission line     | ===== |

## CITY/TOWN CLASSIFICATION

First importance = **TORINO**  
Second importance = **PESCARA**  
Third importance = Lucera

## RADIO FACILITIES

- VHF OMNI RANGE (VOR)
- VORTAC
- TACAN
- VOR DME
- Other Facilities

## SPECIAL USE AIRSPACE



Alert, Danger, Military Operations Area, Prohibited, Restricted or Warning areas. Numbers indicate internationally recognized numerical identifications. Airspace limit line widths are reduced and/or dashed in areas of overlap for clarity only.

All Special Use Airspace is portrayed in the body of this chart with the following exception(s):  
Those activated by NOTAM.

## VEGETATION

To assure legibility of significant relief, vegetation patterns are shown in relatively level areas only

|            |       |
|------------|-------|
| Vegetation | ===== |
| Clearings  | ===== |

Defense Mapping Agency Center, St Louis  
Missouri TPC Series

# Key to Maps & Charts



CANOE ROUTE



PORTAGE



CAMP NO.

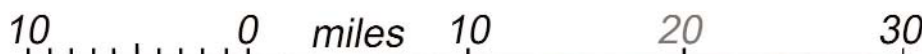


NO. NIGHTS

HOSTEL/HOTEL CAMP

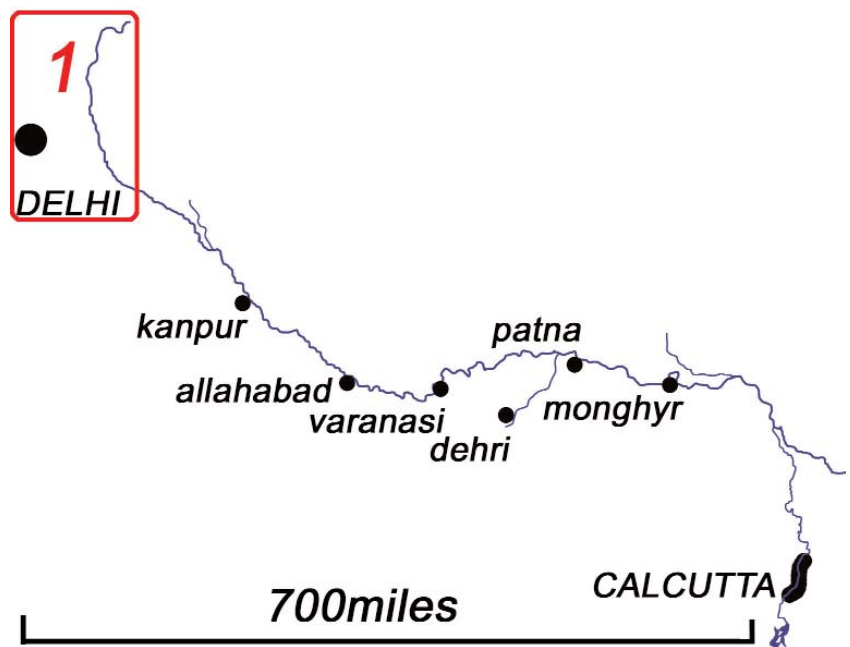


GRID NORTH



# Section One

Delhi, Snow leopard and on  
to Rishikesh and Haridwar



# Delhi to Snow Leopard Camp Field Report

**Final preparations in India took the team 14 days of planning, and sourcing supplies. Following intense negotiations with Indian Customs the team left Delhi by truck with boats, medical supplies and specialist equipment. Next stop the banks**

Approximately two weeks were spent running around Delhi, in heart-pumping rickshaw rides, clearing first the boats, secondly the science equipment and finally the medical supplies through the maze and minefield of Indian Customs. Mitesh's grasp of Hindi proved to be an absolute God send. Four members left for Snow Leopard Beach at 5 am on Thursday morning of our second week here, with the boats and all the personal kit. By Friday Mike and Suresh had collected the rest of the equipment and they set off for a seven hour ride into the mountains armed with twenty seven packets of digestive biscuits courtesy of United Biscuits and three words of Hindi.

Last evening brought them to Snow Leopard Beach camp by the side of the Ganga in the foothills of the Himalayas. After one year's planning, small plantations worth of paper, a substantial investment in British Telecom and the belief of a group of very generous sponsors we were here at last. We could see the sky. Delhi's pollution had made star gazing impossible. We soon set about orientating ourselves to the familiar constellations, this time in a different place.

# Rafting Diapreg to Rishikesh Field Report

**All elements of the project come together and the team is finally on the river. Three days of rafting through the deep sided gorges of the Upper Ganga. Padded footprints on lonely beaches inspire fireside stories of leopards.**

Our first section of river took us three days, from the beautiful mountain village of Diapreg at the confluence of the Bagharati and the Alakanda to the barrage below the holy city of Rishikesh.

Following a long and windy ride in a flat bed truck we started our journey on the river after drying off from the holy dips that we all took with the help of our Nepali raft guide "TB". The rocky gorge darkened the river with long shadows that chilled our bodies; when the intense sun occasionally reached down into the depths of the gorge it was welcomed by all of the team.

The AQUABAC postural support did its job and Mike was able to paddle all three days rafting as a full member of the team. Nuala talked to the raft guides drawing on her experience of rafting big rivers in the USA. Eric finished interviewing the team for his psychology project. Mitesh has been busy studying the maps that arrived in the first DHL consignment and checking the GPS which Silva Compasses have kindly provided. Adrian a.k.a Chip has been busy checking through the science kit that Camlab provided and that was kindly shipped to us by Dangerous Goods International. Mike and myself have been working on making sure that the Postural Support is fitted as well as possible. We have been working with the Raft guides to make sure that all the safety systems are operational in the event of a flip on one of the bigger rapids. The digestives from United Biscuits are being eaten enthusiastically.

The first day from Diaprag to Kaudiala, Grade Two, was an excellent introduction and allowed us to get used to the YAK equipment once again and stretch

our paddling muscles. It was good to be on the river finally, after a long flight via Damascus and two weeks' logistical excitement in the smog of Delhi.

Day two took us from Kaueila to the Snow Leopard Beach just south of Shivpuri. Our river footwear is working well, the grip on our 510 river shoes came in useful when we had to scout the larger more committing rapids by walking down the boulder strewn gorge of the upper Ganga. We have been rafting with a company called Snow Leopard Adventures. Food at the camp is fantastic, the team are busy making plans to steal the chef.

Day 3 from Leopard Beach to the barrage at Rishikesh. The river has lost its steep slopes in exchange for wooded boulder laden banks. The last of the hanging suspension bridges and water pumping towers disappeared with Ramdula and Luxmandula.

# Rishikesh to Haridwar Field Report

**Three days through the woodland jungle of the Himalayan foothills, our first real taste of India. Hot chocolate drinking Sadhus, the haunting cry of the Jackal followed us through the land of big paw prints and Elephant droppings fin-**

We finally reached the river proper at Rishikesh. To our surprise all the kit fitted into the boats. About two o'clock we set off and proceeded all of two hundred metres before we inadvertently ran out of water. A small drag, a little pushing and the boats got through what was to be the first of many small and shallow rapids. Chip has designed a new white water grading system which consists of counting the number of leeches we play host to after each push and shove section. Around four o'clock we decided to make our first camp. Big paw prints on our initial choice meant we went on to select another site. We proceeded to make our camp followers aware that we were no longer top of their food chain. The mammoth spores and crushed vegetation all around indicated that we were also in elephant country. With the crystal blue Ganga gently passing over a rocky incline and the sun slowly descending over the sand duned terrain we settled down for the night. Sleep was fairly undisturbed, apart from the odd jackal cry. The team awoke reluctantly, but refreshed. The next day was spent familiarising ourselves with the kit as some had only been delivered hours before departure in England and had therefore spent more time in the hands of Indian Customs than in ours. Mitesh and Suresh set about getting back to their culinary roots and consequently picked up the nickname of the Chapati brothers. Nuala posed for a Body Shop shoot by the river, whilst Eric seemed content just 'being' so long as there was plenty of honey, this coupled with his rounded physical attributes has meant he has picked up the label of Poo (as in Bear we hasten to add).

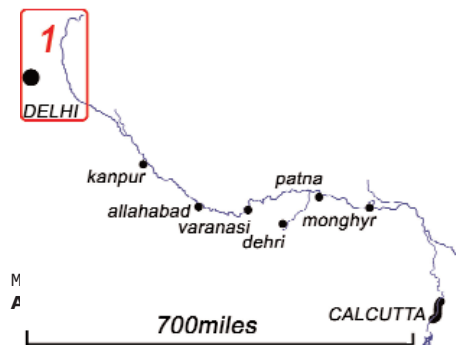
We introduced a wandering Sadhu to hot chocolate whilst he introduced us to anti elephant trampling techniques – basically, grab the nearest pots and pans

**For all of the team the privilege of seeing the daily Aarti (Hindu prayers) on the main Ghat at Haridwar was an experience we will never forget. The evening was charged with emotion as each of us stole a moment to take stock. It was a time to consider families and friends, those waiting at home and those waiting perhaps at the end of our own rivers.**

and bang like hell. A curious night was then spent where we were investigated by some as yet unconfirmed animal presence. Either that or Eric came across Chips' socks in the dark. Camp was broken down over a couple of hours with a healthy respect for the environment and the leeches. Lunch was interrupted by a herd of wild deer crossing the river nearby. By mid afternoon we had arrived in Haridwar.

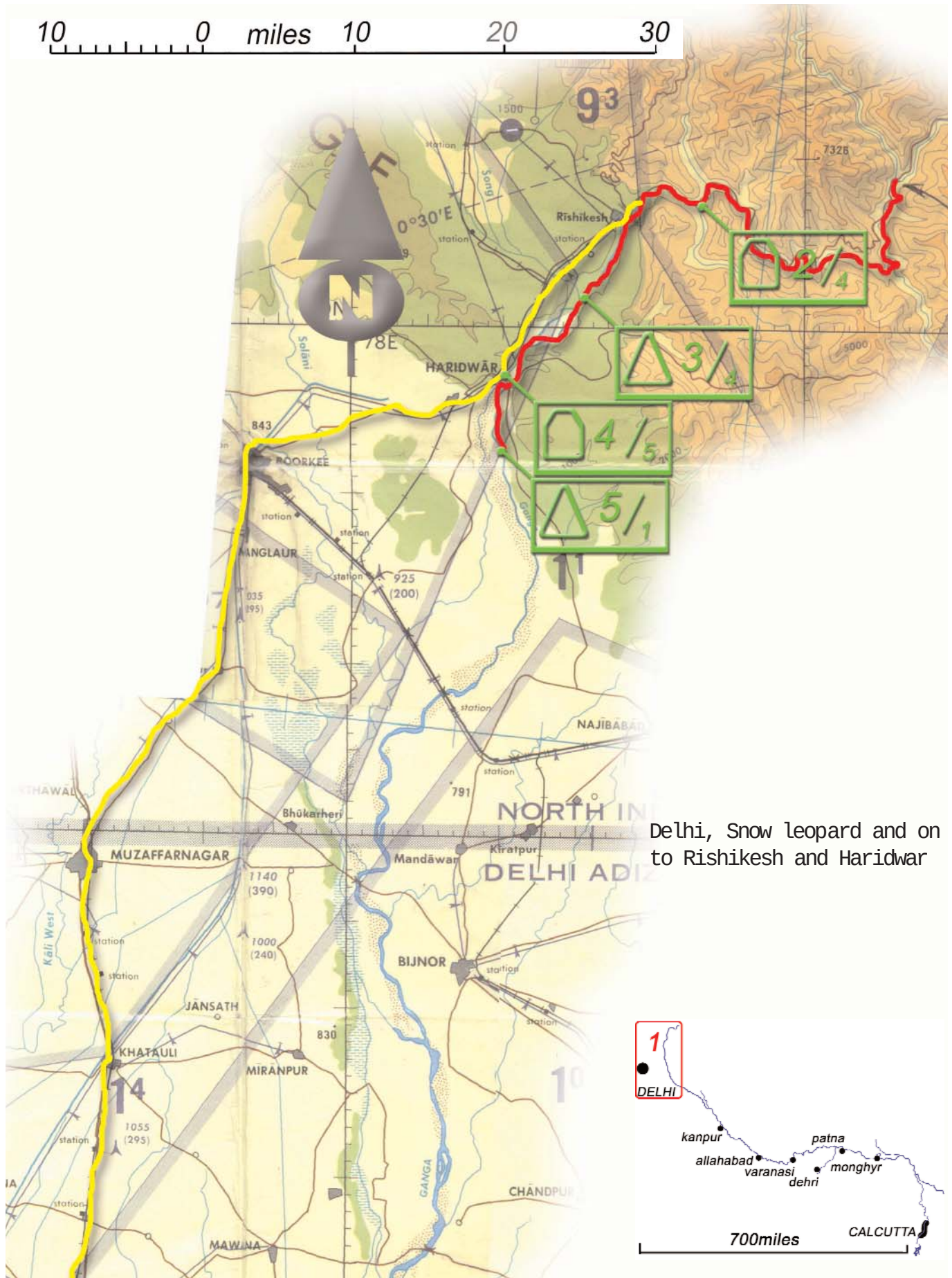
We decided to hole up in Haridwar as a medical supply drop was imminent. The next day whilst the rest of the team rested, Mike and Eric spent 4 hours by the side of a dirty and dusty road waiting for a bus that never appeared. So eventually, on Christmas Eve, Mike and Chip armed with two sleeping bags, a handful of rubber gloves, 5 catheters, one tube of Instillagel and a packet of life saving digestives, set off in a dark and draughty rickshaw for a rendezvous with Santa a.k.a Irish Pete. Back at Snow Leopard Beach they had agreed to hold onto some medical supplies should plan z (the bus drop) fall through. After changing vehicles several times they arrived at Leopard Beach about 9 p.m. and were promptly introduced to the drinks cabinet of a computer company who were now staying at Leopard Beach.

On their return the team decided to attend the nightly Aarti (Prayers) at the main Ghat (Bathing area) in Haridwar. Offerings of large leaves containing flowers and candles were made to the river around dusk, the Sadhus began chanting and banging large metal plates, several burning pyres were built on more metal plates and ceremoniously twirled by hand. As the flaming embers fell into the river the chanting built into a finale lasting half an hour. Then finally the lead Sadhu gave a cry – the flames extinguished and the crowd slowly slipped back into the streets of Haridwar.

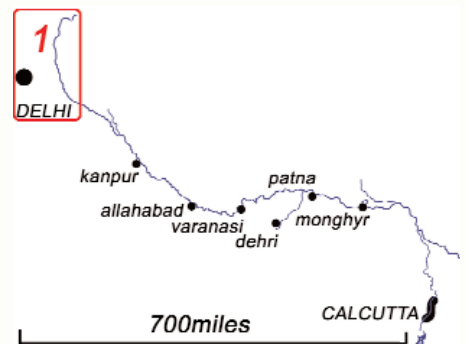


# SECTION 1 DELHI - CAMP 2

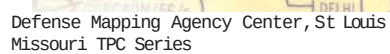
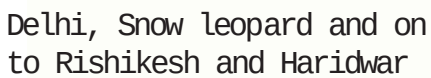
| CAMP NO. | NAME         | GRID REFER-<br>ENCE    | COMMENT           | KM | NO.<br>NIGHT | ACTIVITY                        | TRUCK<br>TIME | DATE<br>1998 |
|----------|--------------|------------------------|-------------------|----|--------------|---------------------------------|---------------|--------------|
| 1        | DELHI        |                        |                   |    | 10           | CUSTOMS AND MEDICAL<br>SUPPLIES | 1             | 7/12         |
| 2        | SNOW LEOPARD | N30.08.70<br>E78.23.50 | NICE BEACH RESORT | 80 | 4            | RAFTING THE TOP SECTION         | 0             | 17/12        |
| 3        | CAMP 1       | N30.02.30<br>E78.16.45 | HIGH BANK         | 16 | 4            | RESTING AND ROUTINE<br>SETTING  | 0             | 21/12        |
| 4        | HARIDWAR     | N29.57.00<br>E78.09.76 | GUEST HOUSE       | 30 | 5            | WAITING FOR MEDICAL<br>SUPPLIES | 0             | 23/12        |
| 5        | CAMP 2       | N29.53.75<br>E78.09.50 |                   | 12 | 1            | CANOEING                        | 0             | 26/12        |



Delhi, Snow leopard and on to Rishikesh and Haridwar



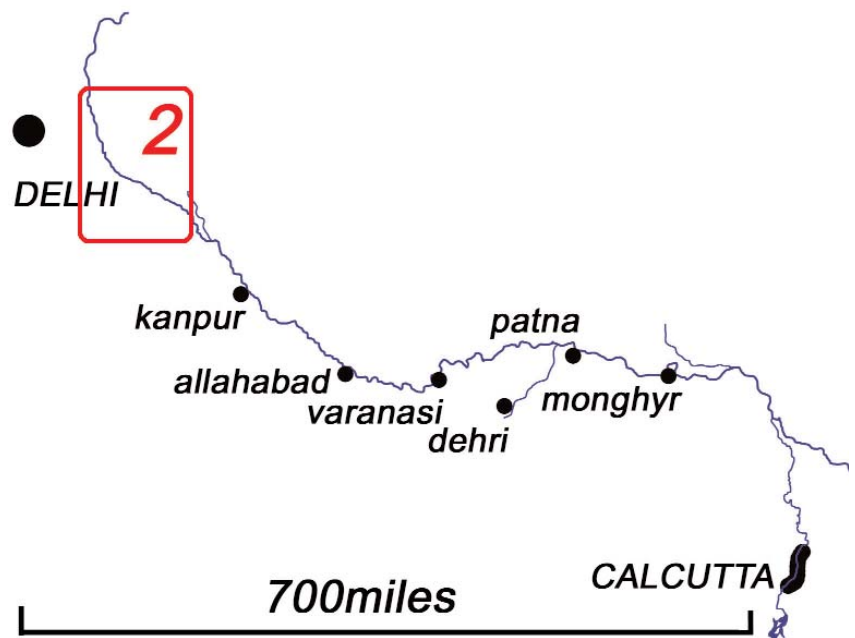
Defense Mapping Agency Center, St Louis  
Missouri TPC Series



## Ganges '98-'99 Expedition

# Section Two

Haridwar, Boxing Day, New Year and on to Hasanpur



Maps 1 & 2 Extracted from **Philips New World Atlas 3rd Edition 1980**

# Boxing Day Field Report - Return to Mother Ganga

**Five intensely cold and foggy days. The science project is hampered by the fog. Our journey through this swift moving section is accompanied by a vast array of bird life, Swifts embroidering the foggy horizons, Vultures standing like monuments on lonely sandbanks.**

We awoke on Boxing Day to a cold and foggy morning. After packing the truck with boats and kit we set off up a back street. In the driver's enthusiasm Eric was nearly garrotted and one of the boats nearly brought Indian telecommunications to an all time low, by entwining itself with the telephone lines. The fog had cleared slightly when we reached the river and by the time we had loaded the boats we were at least able to see the other bank. Progress was made, all of about 8 kilometres. We decided to camp early due to deteriorating visibility. Another cold night heralded the arrival of the Indian winter proper. On this misty morning the cry of "come to India it's sunny" ran through the camp site. Breakfast was interrupted by the sight of two large idols who drifted out of the mist on the river. On closer inspection these turned out to be fisherman perched on inflated inner tubes gently drifting down the river.

## 28/12/98

The two fishermen drift past, we contemplate them, they contemplate us, the mist closes; we contemplate the porridge, the mist is marginally thicker. Suitably replenished and boats loaded we depart downstream into the... well, nothingness really. Canoeing in this is a bit like a cross between the Marie Celeste meets the Bermuda Triangle courtesy of Mobile Adventure. It's definitely an experience. Fortunately the sun makes its presence felt and burns off the fog a few kilometres later, it reveals what initially appears to be a man sat on the bank but transpires to be a vulture at least three feet tall standing and

with a good two metre wing span. It is possible that it could be mistaken for an albatross for whilst Nuala, Eric, Mitesh and Suresh go left farther down the river, the bad boys of Indian canoeing turn right and promptly disappear into a maze of channels. A fraught hour and some mildly acrimonious discussion later ("I told you this could be a mistake" and "OOOPS I hope this joins up again", sees the team reunited and the boys suitably penitent. The rest of the day passes without incident save for Chip experimenting with the GPS (Thanks Silva!) and needing Mitesh to rescue him when he gets a location in Turkey whilst trying to find space invaders. The day (28th) dawns, allegedly. What this means is that the fog is back and changes colour. In a fit of enthusiasm Chip heads into the mist to go water sampling whilst the remainder of the team pack the Bedouins and break camp. He returns later, very flustered muttering about getting navigation aids from Camlab and Silva so he can find his way back. The sun burns through the mist about

11.30 as we travel through the flood plain. It's about three km wide at this point and progress is reduced to a game of hunt the channel. We manage to stop and purchase eggs from a village to supplement our diet and discover the joys of sugar cane. Mitesh demonstrates how to eat it with aplomb whereas Mike is convinced dentures will be needed by morning.

## **29. 12. 98**

The following morning Eric and Nuala make pancakes, Mitesh and Suresh pack the Bedouins and Mike and Chip tidy the rest of the kit into the boats. We lunch on a sandbank listening to the birds singing and watching a kingfisher. Camping later that evening the sunset is gorgeous, the burning oranges and reds against the flat background of the Gangetic plain.

We seem to be coping with the loads quite well, given that each boat is nigh on a quarter ton all up weight and camp routine is getting slicker too. We still seem to pick our campsites though, last night's had

5 a.m. bhangra, modern Punjabi pop music (or it could have been morning worship) and tonight's has all night trains.

Camp discussion is fairly active, majoring on all those matters essential to expedition life, i. e. mostly food, though Nuala's scatological obsessions lighten the mood. The team concentrate mainly on digestives (yes!), lager (no chance) and Suresh being knighted. In the great English tradition of calling yourself after clothing (cardigan, balaclava), we decide on Sir Resh Fluffy Yak Pants of Haryana and Camden.

Quite a strange experience late tonight; a visitation by a local citizen, who, loaded up on Daroo (home brewed paint stripper), decided to come and sell us potatoes, rice and flour. Very public spirited, but just before midnight? Chip, awakened by the splash of a paddle stroke, streaks across the camp site clad solely in a sleeping bag liner to wake Mitesh whose greater command of Hindi

is definitely required here. Suresh gets up to give moral support and spends the next half hour regretting it. Mike and Eric do the most intelligent thing and stay in bed. Nuala has had a disturbed evening so far, just getting into her sleeping bag in time to get out and go again (8 times in an hour!) and is thus not disposed to moving. At least not quickly now. We eventually give the guy fifty rupees, so we can go back to bed and retire.

## **30. 12. 98**

Upon awakening in the mist, (again!) a foray for water sampling is made. This time Chip gets stuck on the wrong sandbank, and has to be talked back in by Eric. It's getting a bit like air traffic control in cloud. After all this excitement it is late morning before we head down river and it gets to 14. 30 before we lunch. United Biscuits' great tradition of feeding canoeing trips (anyone remember Foxy and the '89 Hobnobs Zambezi expedition?), provides us with Digestives which are eaten with jam on the mud bank just above the Madhya Ganga Barrage fourteen km west of Bijnor. This is a large flow control barrage with 28 gates each 5m wide and 4m high. In monsoon it must run over 50, 000 cubic feet per second. The Tryweryn in Wales flows about 270cfs and the Grand Canyon of the Colorado around 30, 000cfs. That is a lot of water.

Mike is not well. Insufficient fluid intake has led to dehydration starting and he's feeling sick and dizzy. It's important to remember that though the sun is not too fierce it is easy to lose fluids whilst working. We decide to camp on the river right on sand. Eric and Mitesh head into Bijnor to ring DHL to see what news there is on Mike's medical supplies whilst Suresh and Chip set up camp, and Nuala sympathises as Mike projectile vomits. The river is changing slowly, we have moved out of the mountains, through the boulder gardens and shallows of Rishikesh and Haridwar, where the water is diverted down the Ganga canals to irrigate the the fields of the cow belt, to Madhya Ganga. We now encounter fishermen in lieu of leeches. Incoming tributaries have bolstered the flow so we can now drive the boats forward instead of having to get out and push. The banks of our Bijnor camp are alluvial sand, the fine dust that penetrates seals and tents. The Eskimos may have twenty words for snow; we have fifty for sand, most of them unprintable.

# New Years Eve 1998 Field Report - Late night rescue and new friends

**Following a day's phone calling and communication with DHL in Delhi, Mitesh and Eric stranded in Bijnor are rescued by a local family. On their return to the river Nuala admits her love of Water Buffalo and their high cheek bones, Eric and Suresh help rescue a Water Buffalo. The journey continues with bitterly cold nights and**

After the brief return of Eric and Mitesh for more paperwork we spend most of the day sorting gear into sandy piles and waiting for news of progress. Heaven knows what the Indians must think of us lounging around in black Yak fleecy babygrows and salopettes; we must look like spacemen to them. Mitesh is particularly striking; black Yak babygrow, black Yak fleece and boots all topped off with a cowboy hat and shades; maybe we could sell him to Bollywood? We have become so attached to the babygrows that surgical removal will be necessary on return to England. The washing kit has proved less of a hit to date, given the weather conditions not too surprising really. You have to take the Yak gear off to get to the body underneath and that gets cold. The Body Shop moisturiser is well worth its weight however, the continual damp/dry cycle, sand and wind plays havoc with hands and feet (and ears, nose, neck etc.). This is the last day of 1998, it's been a manic year to get everything together and everyone in place, the support mechanisms of sponsors, friends, family, associates and employers that are so essential to an undertaking of this magnitude have done us proud, and we wouldn't be here without them. Too often they are the unsung heroes of trips of this nature. The evening closes, Nuala makes an interesting discovery to do with the relative position of the lamp and the body when behind a white tarp. Her further visits to the toilet are greeted with cries of "Do deformed rabbit, it's my favourite" and "Beware the Indian picture show".

**Bijnor 30. 12. 98**

**Difficulties with Customs and illness force a day's rest as Mike recovers from dehydration Mitesh and Eric head for Bijnor.**

It was 3 p.m. by the time we left for Bijnor leaving Mike, Suresh and Nuala at the camp. The idea was for us to contact Delhi and determine the whereabouts of the second medical drop. As it was already two weeks overdue, we prepared ourselves for a trip to Delhi in case we needed to collect it from the Delhi offices. Like all good plans this one was destined to provide challenges and a good deal of confusion. The bus to Bijnor stopped at a number of predetermined stops none of which were marked. Imagine a bus route with no posts, timetable or signs. At least Mitesh could speak Hindi.

In no time we determined that the nearest bus stop was right outside the guard's house. So after a cup of Indian tea provided by the guard despite the insistence we were in a desperate hurry we were allowed on board. The journey began with the pair of us invited to sit at the front whilst being viewed by the rest of the passengers like beings from a different planet. When we reached Bijnor we understood why! The bus itself had seen better days even the rust had rust, the space in between the drivers seat and me was so small that he had to steer from the side. 12 km after we left the guard's home we were dropped outside the bus depot in Bijnor.

We headed for the nearest quality restaurant, you know the type, flies everywhere and the toilet was the street. The restaurant became our offices as we arranged ourselves to sort out the medical drop challenge. About 10 phone calls later, some to England, some to Bombay, in order to set up communications with Delhi (as their external lines were down) we had an answer. Nothing had arrived by DHL and wouldn't do until Customs receive 22,000 R's (about 300 pounds). By now it was getting late and we needed provisions to take back to the rest of the team. Luckily the waiters in the restaurant were surprisingly not busy so they shopped for us while we finished our planning. Time dragged on and darkness fell, eventually we were ready to return to the camp with the news from DHL. Once again we thought we were going to appreciate Mitesh's understanding of Hindi, at least we thought we were.

"Where does the bus for the barrage leave from " he asked a street vendor. Easy you may think, however he indicated a street whose direction was opposite to the one we had come from.

Before long we attracted a large crowd all discussing the route to the barrage and, unfortunately for us, all concluding that the street originally pointed out was the correct street to wait on. So with two hours delay and total confusion we headed off in the opposite direction to the way we had come. About 45 minutes later we reached a cross roads and realised that the street pointed out to us was the correct one and came in from our left.

Standing at the side of the road waiting for a bus in a town that had never seen tourists is a sure way to attract attention and we did. Before long we had numerous interested bees but no bus. Apparently buses did not run after dark

and we soon learned Bijnor did not have autorickshaws or taxis. Still it did have cycle rickshaws. 7.30 p.m., by now the winter fog had set in so when a little man in his 50's offered to cycle us to the river we were surprisingly not convinced, preferring to walk. Hotels do not exist in Bijnor so that option was out.

10p.m., a couple of teenagers came to our rescue, the first introduced us to his friend, who immediately invited us to stay at his parent's home. Tough choice – we accepted. A short ride later (3 up, plus baggage, on a moped!) we were at the family home.

The Malik family treated us like Gods, food appeared from nowhere and we ate to our hearts content. Through the evening we showed off our GPS and Leatherman tools and Mitesh played computer games with the second son, whilst Eric talked of life and the army with Kamran the eldest son. It was soon time for bed. Kamran's mother reshuffled the front room, searched out blankets and in no time at all had created very comfortable sleeping quarters.

The next day, after a sumptuous breakfast, we were dropped off at the barrage. Chauffeured through the thick fog by a family friend who decided to race the accompanying jeep ( not for the faint hearted). We couldn't see the camp when we arrived, being on the opposite side of the river and the fog was still very thick.

Eventually our yells were replied to and a boat was dispatched to ferry us across. Our chauffeur was amazed at the Mobile Adventure crafts that we were using to navigate the Ganges.

We returned to Bijnor the same day to fax England and in turn contact Delhi. The only fax in Bijnor wasn't working so we phoned the offices and promised to make contact in a week and finish the process. By now you're probably wondering where the fax and phones are in these towns. Well, each town has a number of shops that provide phone and sometimes fax facilities. We returned to camp that night, delivered the news and decided to break camp the following day. Mitesh and Eric returned to Bijnor whilst the rest decamped. Further supplies were located in Bijnor – everything bar the toilet paper, in fact they just laughed and held up their left hand.

The journey from Bijnor passed numerous funeral pyres that were to become a regular site in the days to come. It was now New Year's Day and we decided to celebrate in style. Mike and Chip decided to christen the interior of their boat as it gently slipped side on into the Ganges and momentarily disappeared – Houston we have a problem. Mitesh cooked his best creation to date, whilst the rest of us absorbed the evening sun – making its first appearance after a three day break. January 2nd began by a strange observation that somebody had dug a drainage system on our beach in the middle of the night. The next day much like many others started foggy and damp the mist remaining till

mid-day. We arrived at a bridge only to find that like many other bridges in India they are more like floating walkways i. e. large pontoons are strung across the river and metal poles attached to make walkways in the busy season, however in the quiet season ( which we were now in ) the bridge is tied off at one side and the only means across is a small ferry.

Nuala confessed her deep love for water buffalo, nobody commented. That night we were properly introduced to Daroo (moonshine extracted from sugar cane). Mitesh returned from the local still with a rye smile on his lips and a bucket in hand. It turned out to be more successful in lighting the fire and keeping the lamps burning than it did in medicinal qualities. The 4th of Jan brought a few surprises - mid afternoon found us staring down the wrong end of a shotgun from the river bank. We may have been mistaken for poachers any which way we did not want to be the game. We employed Arctic convoy techniques (zig zagging) Resh's comment was I guess this is where we learn to sprint.

After the fire came the salvation, a large object jumped out of the water in front of us "What the ----" was the cry. Then another, then another, suddenly we realised we were in amongst a school of dolphins. Paddles were downed and hearts and minds opened.

Finally we camped at Tigne, our stoves decided they didn't want to play so we had to borrow one from the local chai walla. The 5th started windy and got worse as the day went on "Haridwar here we come again" was the cry. By now we had resorted to firewood for cooking, the stoves going on permanent strike. The 6th began windy but did clear up. Suresh and Eric went to the rescue of a water buffalo which became stuck down a hole in the river.

By now we were all becoming more sensitive to the cold misty conditions and almost simultaneously we sensed a change in the air. Oh oh it's going to chuck down any minute.

A light drizzle descended and we decided to finish early for the day. Mike and Eric set about preparing food. Mit and Nuala worked on the toilet, much to the amusement of some passing villagers who ain't too shy when it comes to performing a No. 2, then they went off to the village to get some supplies.



# Hasanpur Field Report - A musical shelter from a storm

**The fiercest downpour and the whispered threat of Dacoit (armed robbers). Accompanied by music and hospitality the team take refuge in a musical farming household.**

We landed on a small beach in search of shelter before the storm, just in time to see the colour drain from the jewel blue sky. Chip and Resh got locked into creating the perfect tarp. They had just finished when the downpour settled in proper. Mike and Eric continued preparing food whilst Chip and Resh grabbed the kit under cover. In the distance we heard some singing and through the torrent a ferry deposited a large group of workers on the beach.

Seeing six gringos and loads of kit where usually there was space they naturally became inquisitive. We invited them to share our shelter. After a little encouragement one guy began to sing and soon we had forty budding soprano's serenading us below an ever descending sky.

The local head man made his presence known and invited us to spend a few days with him and his family. We duly accepted and a request for two bullock carts went out on the Indian grapevine. We carried on being entertained until our transport arrived with the night closing around us. So we began the dark muddy slog into Hasanpur. Upon arrival we were introduced to Gramps and all his various offspring.

We were cold, tired and extremely hungry so when the food we had prepared earlier arrived in the shape of a local curry dish we enthusiastically dived in. Big mistake, the next 5 minutes was spent searching for water bottles and gasping for air - Chillis and then some.

Then the singing began in earnest, an up-turned milk pail doubled as a drum and a strange pronged thing with cow bells brought in the percussion section. We sat, 30 people on 8 beds, listening to the sons of the family give out everything they had.

Mike was able to record some of this session, which tickled them pink as they were able to listen back to their singing for the first time. Holding up our end, Mike's unaccompanied rendition of Folsom Prison Blues left them bemused. Slowly we all slipped off into a quiet slumber. Next day was officially called a rainy day, the children were kept off school and the men said no to the fields for a day. By afternoon the sun had emerged, we investigated the village whilst the villagers investigated us.

Evening came, we exchanged card games and introduced them to Monopoly, a completely foreign concept to the villager's communal life. Morning came several times during the night when some stray dogs decided that they too loved the taste of digestive biscuits. Mitesh rose first and helped collect the milk for the morning Chai, literally hands on. Soon it was time to load the bullock carts and return to the river. We bade them a fond farewell and off we went again.

# A Woman's Perspective Field Report - Indian Village Life by Nuala Mulholland

**Family and village life in India often provides very exacting structures for the roles of both men and women within the home and in day to day life. Nuala as the only woman on the team was able to experience some very different things to the rest of the team. Perspective and attitudes and daily experiences were shared along with Body Shop gifts.**

“In India, especially in rural places, there is some segregation in everyday life between men and women. Being female I was able to mix with the women and find out a little bit about their lives.

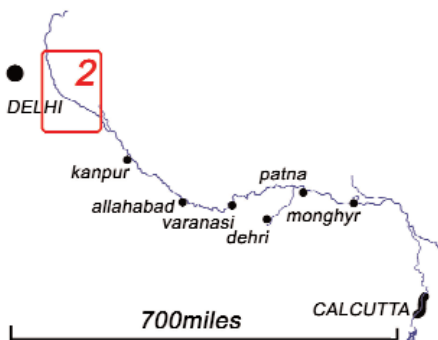
During our stay in Hasanpur we lived with a family in their farmhouse. Mother, father, 4 sons, 1 daughter, 4 wives for the sons and a total of 15 children plus the 6 of us meant 30 odd people in the small farmhouse. We stayed in a large downstairs bedroom, where we were visited by the family men and local villagers. The women of the house, except the grandmother, kept themselves apart and covered their faces in front of us. I was soon invited to the upstairs of the house to meet the women. Up some narrow stairs was a roof top area, two sides of which had rooms off it, the rest overlooking the farmyard below with the buffalos in. At one end was a cooking area with a clay built stove where food was prepared.

Next to the open fire stove lay a pile of dried buffalo dung (a common sight everywhere in India) ready to burn and a big metal bowl full of atta (dough) ready to make roti (unleavened bread). Squatting besides the fire were two of the wives of the sons of the household who were also sisters. They half covered their faces as I approached and smiled shyly. They pulled up a low stool made of rushes and pointed for me to sit on it. I did this and sat attempting to communicate in broken Hindi and with a lot of gestures. Around this huddle of three was a constant hum of children, adults getting on with daily life, hair combing, straining buffalo milk, making tea, chatting, playing etc.

The women spend most of the day up on the roof, catering in one way or another for the family. At the end of the day they go down and cut grass with a large wheeled cutter for the buffalo's food. There is a serenity about life in the home; there is no rush, time pressure does not exist.

As time went on the veils were dropped and I managed to talk more freely with the women, who were concerned about the future of their daughters – they would have preferred sons, as sons would be able to make an income, whereas for girls a dowry would be needed when they were to wed. I was asked to take the smallest girl back to the UK with me to provide her with a good life. I refused, but felt strongly moved by the situation. The lives of these women were so different than mine. We left gifts with them from the Body Shop which proved to be really popular and much appreciated.

I had enjoyed my chats and time spent in female company, something quite difficult to do in India as the public face of the country is predominantly male dominated, whereas the home and family is the female domain.”

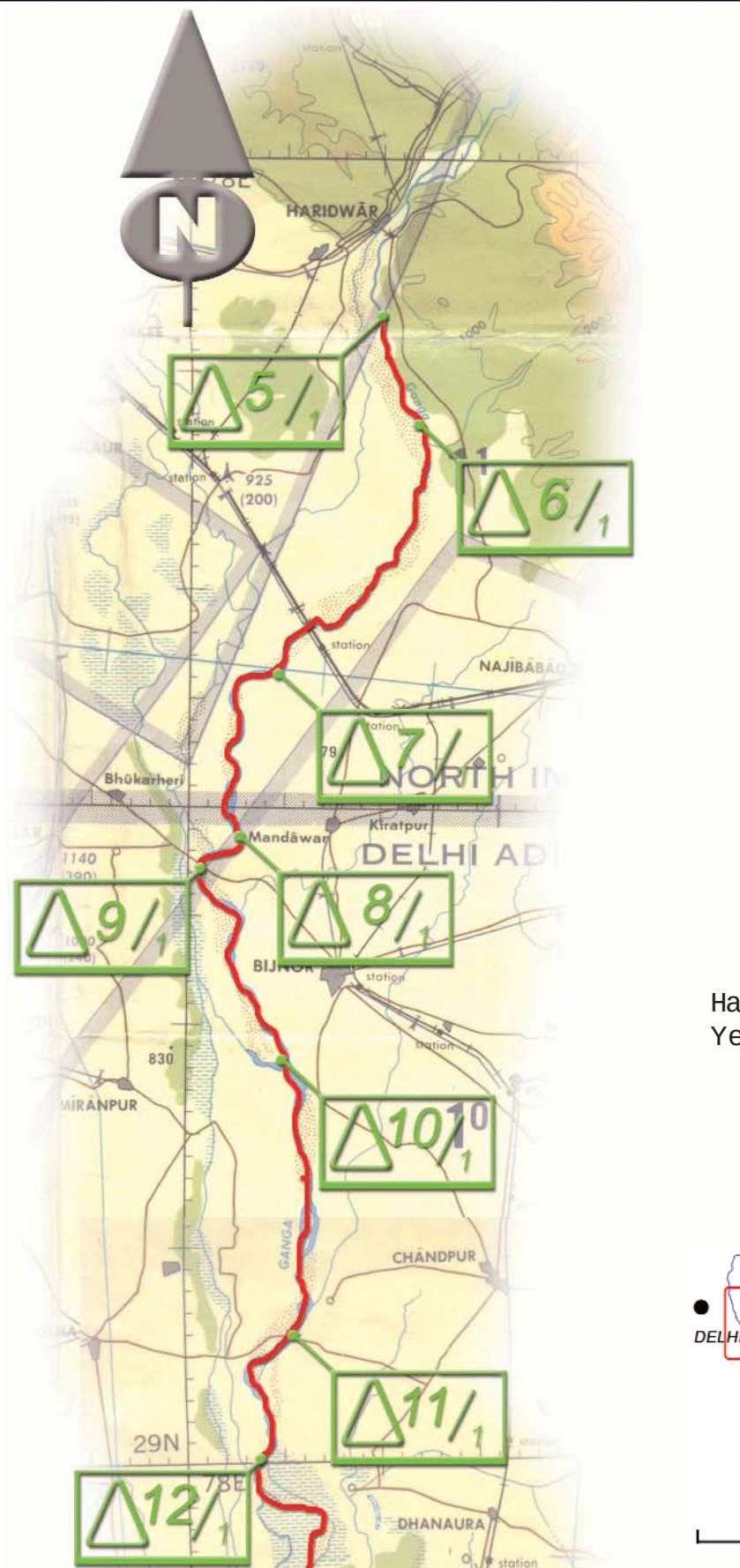


# SECTION 2

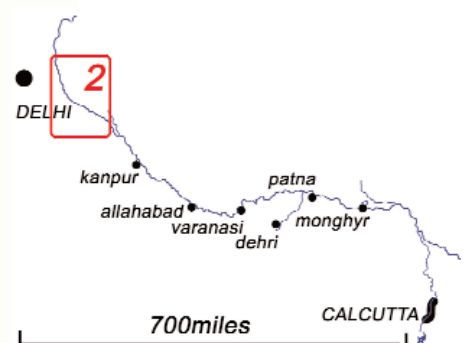
## CAMP 2 - CAMP 12

| CAMP NO. | NAME    | GRID REFER-<br>ENCE    | COMMENT             | KM | NO.<br>NIGHT | ACTIVITY                               | TRUCK<br>TIME | TRUCK<br>DATE |
|----------|---------|------------------------|---------------------|----|--------------|----------------------------------------|---------------|---------------|
| 6        | CAMP 3  | N29.47.76<br>E78.11.69 |                     | 13 | 1            | CANOEING                               | 0             | 27/12         |
| 7        | CAMP 4  | N29.36.70<br>E78.05.67 |                     | 27 | 1            | CANOEING                               | 0             | 28/12         |
| 8        | CAMP 5  | N29.27.77<br>E78.01.77 | LOTS OF DEAD FISH   | 10 | 1            | CANOEING & CHASING<br>DHL FOR SUPPLIES | 0             | 29/12         |
| 9        | CAMP 6  | N29.27.35<br>E78.01.45 | CAMPED BY BARRAGE   | 15 | 2            | CANOEING                               | 0             | 30/12         |
| 10       | CAMP 7  | N29.18.21<br>E78.06.33 | MITTS NEW YEAR MEAL | 30 | 1            | CANOEING                               | 0             | 1/1           |
| 11       | CAMP 8  | N29.06.81<br>E78.04.83 |                     | 28 | 1            | CANOEING                               | 0             | 2/1           |
| 12       | CAMP 9  | N29.00.13<br>E78.03.23 | WINTER BEGAN        | 18 | 1            | CANOEING                               | 0             | 3/1           |
| 13       | CAMP 10 | N29.48.50<br>E78.08.93 |                     | 30 | 4            | CANOEING                               | 0             | 4/1           |
| 14       | CAMP 11 | N28.43.14<br>E78.11.51 |                     | 20 | 1            | CANOEING                               | 0             | 4/1           |
| 15       | CAMP 12 | N28.32.06<br>E78.12.06 | STAYED IN HASANPUR  | 25 | 2            | SHELTERED FROM THUNDER<br>STORMS.      | 0             | 6/1           |

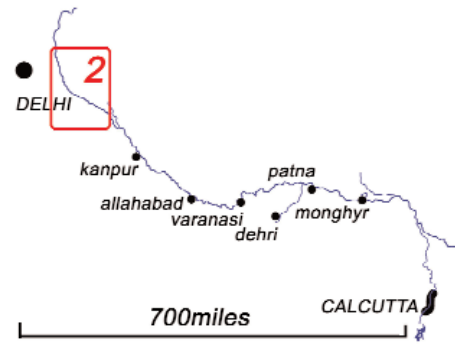
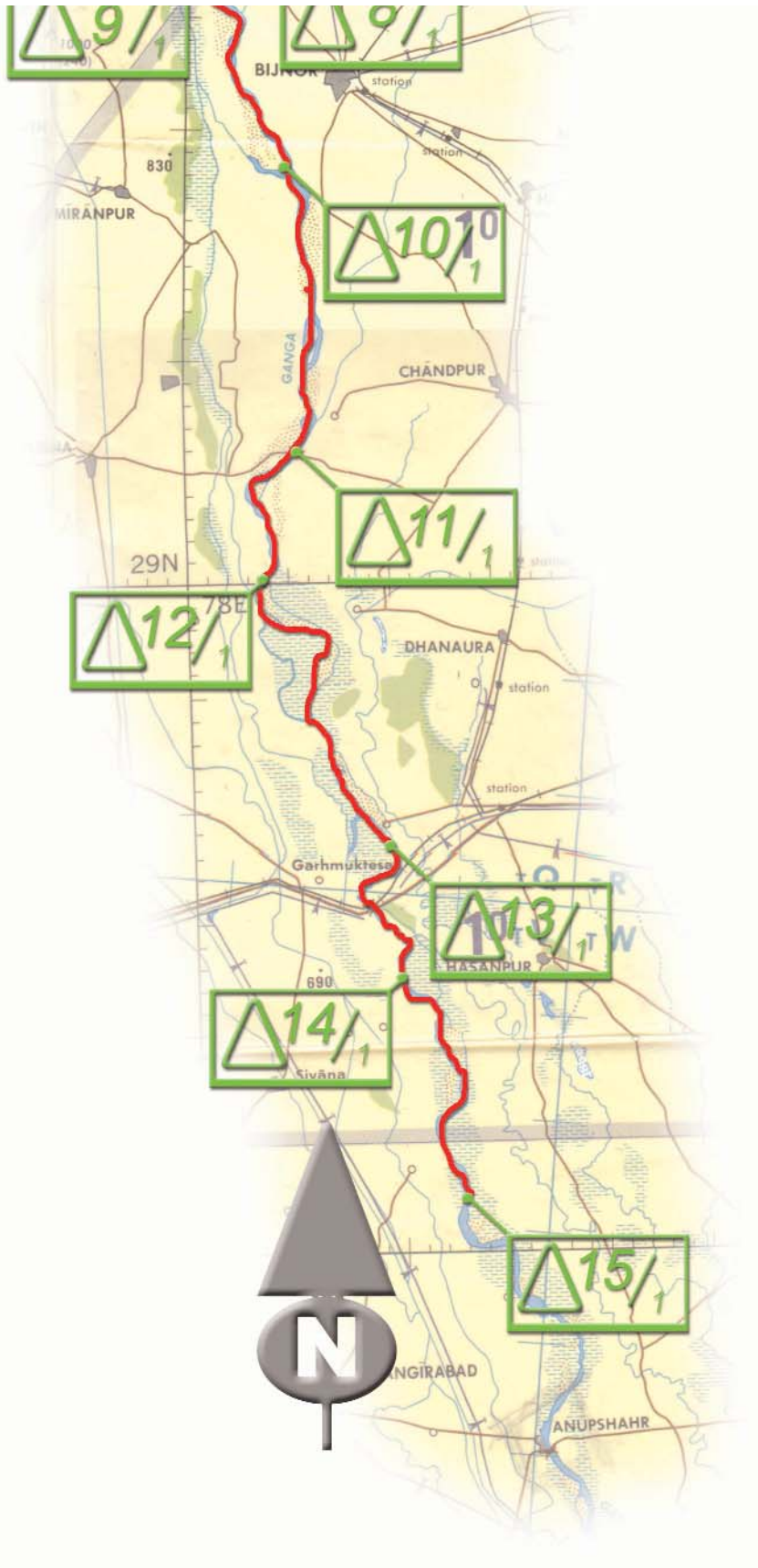
10 0 miles 10 20 30



Haridwar, Boxing Day, New Year and on to Hasanpur



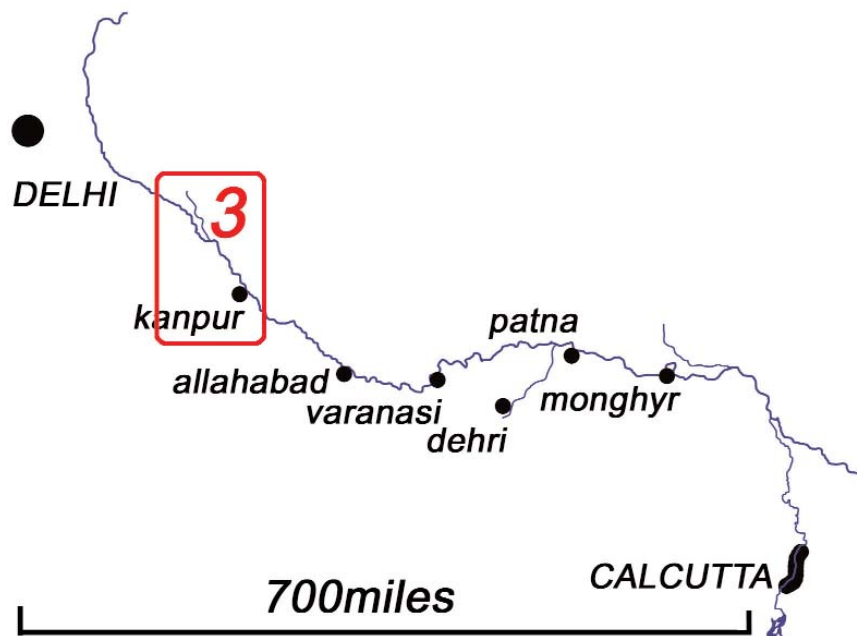
Defense Mapping Agency Center, St Louis  
Missouri TPC Series



Haridwar, Boxing Day, New Year and on to Hasanpur

# Section Three

Hasanpur, Anupshar,  
Mustafabad and on to  
Kalankankar



# To Portage or Not to Portage Field Report - Slow progress creates conflicts

**Indian Customs and low water levels had hindered our progress. We had already committed ourselves to a Water Rally in Allahabad organised by the Indian Canoe and Kayak Federation. However our current rate of progress meant we wouldn't make this appointment, let alone arrive in Calcutta much before the end of May.**

Weather, low water and Customs difficulties had made it difficult to stay to schedule. All of the team felt the pressure of the promises that they had made to friends, families, sponsors and work colleagues to make the journey. Portaging from Anupshahr to Fatehgarh meant to all that the purity of travelling the length of the holy mother Ganga would be lost. However the ever present need to gain medical supplies was in conflict with our desire to form long-term links with India in support of our educational objectives.

Heated discussions took place on the sandbank up river of the peaceful market town of Anupshahr. Backs turned to each other and we all agreed to take time out. Mitesh, Nuala and Suresh started to build an expedition logo in the sand, whilst Mike and Chipy discussed the merits of practicality and perfection.

A packet of life saving Digestives was produced as the last of the sun headed west over the temporary bridge that waited for us down stream. With some regret we decided to accept the integrated yet imperfect journey that lay ahead of us. Adapt and overcome were the words on our lips as we headed for the bridge. Silence for a time as we approached, another crowd.

# Portage Field Report - Anupshar to Fatehgarh

**Mindful of the roads we set off on what was the most risky part of the journey yet! A late night truck stop and a night under the stars in a truck bivi.**

## 8.01.98

Having arrived at Anupshahr and successfully located a truck (Marvellous Mitski and his assistant N M strike again) the team transship to Fatehgarh. This was a portage necessitated by the time factor due to our delays in Delhi, courtesy of Indian Customs who don't reckon Mike's catheters are a medical necessity. Mike has other views. We did suggest Mike showing them just what self catheterisation entailed (call out Dyno knob) and inviting them to try it, but good taste and discretion prevailed so we have to put up with the hassle. The team are now in a truck, split into a back party (Nuala, Eric and Mike) and a front party who thought they'd got the comfy seats.....

Meanwhile in the front of the truck, things are entertaining. The driver, his son, Chip, Suresh and Mitesh (who is definitely not Suresh's son, despite what staff at a certain mountain centre reckon) are wedged into the cab. Every time the driver brakes, the brake failure light on the dash flashes, but we still slow down so that's OK. Being in the back is a much safer option especially after one near miss with a tractor (one headlight looks like a scooter until just prior to impact- \*\*\*!@!!@!!!) sees Chip fending off the dashboard with one hand, fielding Suresh with the other and catching a two foot square block in the head. It does give you a better view of the wildlife though, a couple of medium sized cats (most definitely not domestic!) and a civet are tonight's tally. These are the first wild quadrupeds we have encountered save for dogs and

deer, having 900 million people in a country does not leave much room for anything else. Unfortunately being in the cab also provides you with a superb view of the consequences of Indian driving techniques and when the driver wants to stop and rest for a few hours three truck/bus accidents in the previous hour is persuasive reasoning. We've made about 40 kilometres an hour including cow stops, chai stops and near misses, so we're happy.

At the truck stop we grab a bite to eat, whilst Mike, true to form, manages to get involved in conversation with two very drunken local wide boys. When they depart on their scooter we run a sweepstake on the number of meters they will attain but they disappear into the darkness leaving us disappointed, but free of carnage.

We crawl into our den under the canoes in the back and drift off into a Rocky sponsored sleep, save for Mitesh who wins short straw and gets to sleep with the driver!

Five a.m. happens and the truck starts again. Chip stays in bed (not much change there then!) and sleeps through it. It's a much better class of travel in the back, the lack of proximity of sharp bits of dashboard and windscreen waiting to rip your face to shreds at the unexpected speed bump/tractor/cow is most reassuring. We arrive in Fatehgarh about 0900 on the 9th smelling and sweaty and proceed to unload into the best (only?) hotel the town has. It is also the only hotel that will take us and our kit.

# Fatehgarh to Delhi Field Report - In Search of Medical Supplies

**Exhausted Mike and Suresh head for Delhi to collect another set of medical supplies. Suresh is reminded of childhood nightmares of Indian train stations, whilst Mike copes with catheters and Indian Railway toilets.**

After the three S's and a snooze, Mike and Suresh depart for the overnight train to Delhi. A power cut means that the station is shrouded in darkness, shadows drift along the platforms. A train arrives and we are directed to the far end. Unfortunately we cannot find our seats, eventually it is explained that our section of the train hasn't turned up yet. After an hour it turns up and we settle down for yet another night's sleep on the move. (N.B. Indian train toilets are not for the faint hearted). 8 a.m. finds us bleary eyed in Delhi at a completely different station to the one we were told we would arrive at. Suresh's cousin comes to the rescue and takes us back to the family home. After breakfast they both fall asleep for the remainder of the day. Evening saw them planning a strategy similar to an inverse Colditz escape with Mike's catheters as the POW. Latest news was that the 2nd med drop was at the DHL office in Delhi awaiting a 22000 rupee ( about £310) duty payable to Indian Customs. Monday morning found them at the aforementioned DHL office discovering that the package had been delivered to Snow Leopard Adventures with no duty to pay. It transpired that John Hicks at DHL London had stood the duty yet again. Big thank you to John. However we were still going to pay a substantial amount to get the other consignments through. We decided to take it to the top, so off we went to the British High Commission. The next two days were spent meeting the B.H.C., the Indian Minister for External Affairs and the Customs Office, all to no avail. If we had another two weeks in Delhi we may have made some headway, however we were already behind schedule and the team had been unable to change money in Fatehgarh and were consequently hotel bound. A decision was made to transfer some money from the United

Biscuits donation towards the post Expedition Education tour in order to get Mike's medical supplies (not available in India) and allow the expedition to continue. It was an emergency, of sorts. Thank you to United Biscuits.

Midnight Wednesday found Mike and Resh settling down for another overnighter and a return to the team, following an eventful rickshaw ride from the station which saw Suresh's foot trapped between the side of the rickshaw and a tractor.

## **Meanwhile the rest of the team...**

The next few days (10th, 11th, 12th, 13th January) are spent esconced in the Hotel Hindustan where the team rediscover hot water and being clean, run out of shopping money due to no banks accepting sterling travellers cheques and play chess and draw whilst waiting for news from the medical re-supply team (Mike and Suresh) in Delhi. Mitesh and Eric become budding artists under Nuala's tuition, whilst Chip aspires to a career of inactivity as a super-model.

High points of our few days include the Pied Piper tour when we go shopping just as the local schools close for the afternoon. Nuala, Eric and Mitesh are mobbed as they proceed from the rice shop to the jam shop and beyond. Chip just hides.

Restitution comes the following day when, out for a walk, Chip stops to admire a bird (a blue magpie – honest) bumps into a local politician, Sanjay Tiwari, and is invited in for chai. After introductions to the family and viewing photos of Sanjay's political friends and associates who include ministers in Uttar Pradesh and the Delhi government, he returns to the hotel riding pillion on Mr Tiwari's motorcycle. The end result is a much greater understanding of the Indian school system thanks to 4 year old Nandeep and an invitation for the team to visit a Mela tomorrow.

Up early on the 14th to accompany Mr Tiwari and family to the Mela. A Mela is a congregation of Sadhus and Swamis who meet and be holy and dip in the Ganga, the holiest river in India. It is a bit like a convocation of cardinals and archbishops crossed with a large scale church picnic, spread over several days and acres with a fun fair thrown in too. The intense concentration of orange made the banks of the Mother Ganga come alive.

Sanjay introduces us to the President of the Mela, who as Sanjay's family Sadhu has co-ordinated the feeding of the hundred privileged Sadhus who each receive a prayer book, a new orange cloth, a pair of karouns (special wooden Sadhu sandals), and a prayer mat all donated by the Tiwari family.

A swift trip back to the hotel sees Nuala's next letter to Santa requesting a new

spine and the rendezvous with Mike and Suresh for funds. More express shopping, then it's back for a press conference which Sanjay has managed to arrange, before crashing out exhausted. Mike has found Chip's rum stash and insists on helping to drink it as a weight saving measure.

## **To the river once more**

Friday the 15th and the team jump into action (apart from the rum club who crawl...) packing kit and boats into the truck, which turns up an hour and a half late. IST actually stands for Indian Stretchy Time. We are mollified when we open the paper to find we are on page 2 with a photo and three column inches about water testing. Unfortunately it's all written in Hindi so has to be read by Mitesh to translate to the remainder of the team. The rest of the day is spent boating and consoling Nuala whom we have attempted to convince is now Mrs Eric Brymer!

# Fatehgarh to Allahabad Field Report

**A truck back to the river,  
followed by three days of  
enforced sailing as Nuala and  
Suresh are taken ill by another  
bout of food poisoning.**

We arrived at the hotel in Fatehgarh thinking our troubles were over, and settled down for a well earned rest. Suddenly the electricity began to falter and a series of loud flashes appeared outside our bedroom window. It appeared that the conductor directly outside Mit and Resh's room had thrown a wobbler, big time. A loud bang left us hunting for head torches yet again. Next day saw us collecting another medical drop this time without any hiccups – nice one DHL – and after the usual run around at the post office we were able to access our mail.

The next few days up until Tuesday were spent on various pampering trips to the local leisure centre, massage, haircuts, movies and a general chill out as a whole group (the first one since we arrived in India). Not much to report apart from the chicken that did not agree with Mike, who spent a long night riding the big white bus.

Tuesday we loaded the trucks and set off for the river. After a few wrong turns we were on the right road only to run into an impromptu road block set up by local villagers at the site of a recent accident. They were protesting at the number of accidents caused by the trucks passing through the village. After some heated discussions we finally had to wait for police intervention before we could proceed. Mike and Chip took full benefit of the elevated view that the canoes gave over the driver's cab and played 'dodge the electric/telephone cables' through the various towns.

Our first attempt at gaining access to the river was thwarted at a bridge of an irrigation canal which could barely cope with a cycle rickshaw let alone a 7 ton fully laden truck. Our next attempt farther down stream ended when the road disappeared into a ditch just large enough for the truck to disappear into. The moral which seems to apply to both maps and life in India in general is don't believe what is written and always be prepared to make it up as you go along.

Finally we reached the river where a wonderful woman welcomed us to a temple she was caretaking – explaining that the temple belonged not to her but to God and we were welcome to stay as long as we liked. The moonlight cast interesting shadows over the courtyard as we settled down to the gentle sounds of the river flowing, dogs barking, rats scurrying and Suresh chucking his guts over the wall.

Morning found us refreshed(except Suresh). Above us the mist soon gave way to clear skies and then sun gradually appeared over the temple roof. This morning the sun glowed with a hint of orange that seemed to burn deep into the temple walls creating an image of heavenly fire. It was to be a good day, at least so we thought.

Breakfast was being prepared by Mitesh and Eric whilst dodging the droplets of dew falling from the tree that sheltered our quarters. Meanwhile the rest of the group readied themselves for the day.

We were camped way above the river so bit by bit the boats and baggage were loaded down the temple steps. Looking back from the Ganga the steps rose steeply up to the temple floor and stopped directly in front of the main building, which was complete with intricate designs and well kept shrubbery.

The night before Nuala and Suresh had become ill. Suresh quickly lodged a counter attack against the bug and threw up all over the temple floor. Nuala however waited for a more opportune moment during the day. Thus we realised our perfect day was to become a little less ideal. Mitesh normally a chef with total control, began by boiling over the morning tea, twice, and then to seal his fate he lost his sunglasses in the river.

It was then that we appreciated the severity of suffering experienced by Nuala and Suresh. Nuala's turn came to battle the bug and accompanied by strange inhuman utterances she threw up seven times. We had to reassess our plans and began to float and think.

For the first time in our journey we were to be blessed by a down stream breeze and a wide river, it was a perfect sailing day. Mike and Chip rose to the occasion and rigged a contraption that consisted of paddles, crutches and the toilet tarp that sent them flying on their way. The other four complete with an invalid in each boat joined together and negotiated a deal with a local wood

yard for bamboo poles. It did work, we moved a little way but not before Mitesh fell into the river trying to take Eric with him.

We sailed for the remainder of the day in our amateurish way, the two sick people trying to rest in the front of one joined craft whilst the other craft sped on its way. Eventually we rounded a corner and spotted a floating bridge and bathing area to our left. It was time to camp.

Suresh and Nuala crashed, still very ill. Mike and Chip cooked, Mitesh and Eric set up camp. The site was obviously very old, and once incredibly majestic. Now it felt deserted, sand covered the concrete steps that led up to the old village. In the distance monkeys chatted to each other as if passing on the news of our arrival. Soon we were surrounded by local villagers eager to find out about our purpose and home town.

It was a beautiful evening, a gentle breeze drifted in from the river and the sun sank slowly behind the horizon. In the old village Mitesh, Eric and Nuala found a water pump and seizing the moment proceeded to wash themselves in the warm spring water. It seems that these pumps tap in to water at least 80 metres under the earth's crust and draw on springs to provide water for the villages. The villagers, meanwhile, cart buckets to and for for their daily survival.

We slept on the steps underneath a starlit sky that sparkled with indescribable clarity. Shooting stars fell silently to their doom and night birds sang with almost perfect regularity. In the distance jackals called, first one then a chorus howled and yelped as if calling the moon to earth. We hadn't seen many clear skies so, as we lay in our tents, we soaked in every inch of it and marvelled at its beauty whilst drifting slowly off to sleep.

We were now in Dolman Grid ref. 26.03.52 81.01.87

Morning came far too quickly. The sky had changed and was now filled with large white clouds reminiscent of cotton wool blowing in the wind. Around us the chattering had become more urgent as monkeys awoke from their night time haunts. As usual we set about camp routine with efficiency!

Whilst breakfast was being prepared, the morning felt heavy, the clarity that had existed during the night had turned to confusion. We soon found out why - it rained and continued to do so, off and on, throughout the day. When the first drops came we ran for shelter much to one monkey's delight, with agility and speed it shot through the camp stealing a bag of nuts on its way and laughing at our feeble attempts to restrain it.

The day remained heavy, with rain making an appearance throughout. Our journey was supported by numerous dolphins as they glided through the water,

their backs glistening like silk in the sun.

Later that day we stopped to view a ruined building that stood high above the river observing the water below. The building was once a Muslim house and stood next to a village that specialise in the production of rope. The village was small, perhaps 20 mud huts arranged in a haphazard manner. Some villagers weaved, some prepared the grass, some made the tools whilst others prepared the bundles for sale. A true community.

All around us thunder was roaring its intention and dead bodies and skeletons littered the beaches. We got the message and headed for the nearest man-made shelter. This time we settled in a small tourist village that sometimes catered for 4000 people all celebrating the holiness of the Ganga River.

We slept under a concrete roof that seemed to be held up by prayers rather than bricks and mortar, and shared our accommodation with the local dogs. It was warm and dry, so we didn't mind too much.

The village was Mustafabad ref 25.55.45 81.13.29

The next morning we headed for the local school to keep our appointment with the school's headmaster.

## **School at Mustafabad**

School life in Mustafabad (a small village on the banks of the Ganga) is a very different affair to the average British school day. We managed to spend a half day at the school and find out a little about how education works in rural India.

The school is a small building in large grounds. There are trees to give shade and large areas of baked earth on which the whole school is assembled and seated. There are 300 pupils in the school aged 11 -18 years. There are three classes or grades - 6th 7th 8th - and in order to move up a grade a certain standard of ability has to be achieved hence there are mixed-aged classes. The three classes are seated separately and within each class boys and girls are separated again. The school has three teachers including the headmaster; although it has an allocation for five teachers from the Government there is no money to pay them.

There is a winter and a summer timetable with summer school starting very early in the morning (7a.m.) and finishing at midday to avoid the afternoon heat. As it is winter, school starts at 9a.m. and continues till 3 p.m. Lessons take place outside as the temperature is warm but not too hot; in Indian terminology it is "very pleasant".

The headmaster tells us that each day starts with prayers to God, then the National Anthem and then physical exercise. We are given a demonstration of the physical exercise where the children stand in lines whilst the head teacher calls out a series of numbers at which the children move their arms, legs and torsos into different positions. The whole thing has a certain military air about it.

After this remarkable demonstration we are sung the National Anthem by the whole school. Then a small boy is singled out to sing a song about Independence for us. He nervously comes to the front of the school and in a very stiff upright manner starts to sing, his shoulders hunched and embarrassed, as he continues his confidence grows and he relaxes, singing with obvious feeling about Ghandi, Nehru, the Ganga and the Yamuna Rivers. It is very impressive and he gets a well deserved round of applause.

We are then invited to teach something and we try to teach the action song "head shoulders knees and toes" which is received with much amusement. After this we split up, Suresh and Chip working in English with the older girls and helping with them with grammar. Mitesh entertains the older boys with games and Nuala tries to entertain the younger girls with some more games and songs. Eric takes photos and chats to people. ( Mike is back at the boats – more about that later).

Lessons taught in the school are Hindi, English, History, Geography and Mathematics( English is given a high priority as the second language on the subcontinent). Mid-day comes along with our time to leave the school. We left to the sounds of countless cheers and waves.

We sailed again that day, this time with three boats and a rig that would have made any Atlantic sailor proud. Chip directed whilst the rest of us strapped and pulled. With a mast consisting of two bamboo poles strapped together and the large tarp we made our way at about 4/5 knots.

That night we made camp a little later than usual.

## **Kalankankar ref. 25.47.23 81.21.26**

Another clear night with stars twinkling with delight as they surveyed our camp site. The moon was almost full and bright enough to read and write by. Across the river a small Mela (religious gathering) was continuing its ceremonies, "Sita Ram, Sita Ram, Sita Ram, Sitaaaa Raaaam" echoed across the water and continued way into the night. Furthermore, it started again at 4.30 the next morning. It does not matter where you are in India; the country never seems to sleep and somehow thrives on noise and action.

The next morning began late as we were distracted by a family of camels rest-

ing beside the river. Amazing creatures that move as if controlled by some unseen puppeteer pulling strings at appropriate times. They are sandy in colour though some are darker than others and have lips that ripple like jelly set in a half moon shape. Every now and then one would stop chewing, grumble a little from deep inside its body, cough and then fill its mouth with more cuds to chew. Sometimes in the middle of the process a flash of tongue spluttered unexpectedly from its mouth like an enormous liver revived from the mortician's slab with an electric jolt.

We moved from here, rigged up a sail, and continued on our way. After a couple of attempts to find a clear camp site and a truly amazing standing start by sail, we eventually settled for a small spot by a village. Mike and Chip produced the meal whilst the rest of us set up camp and eventually sat around a fire lit from cakes of cow dung.

## **ref 25.39.82 81.25.98**

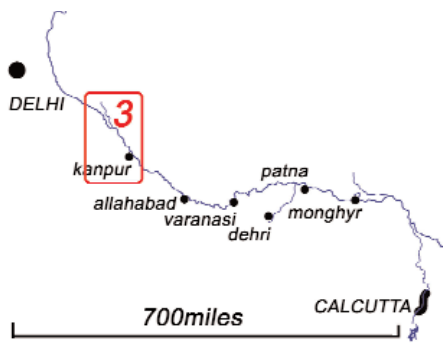
The next morning we were woken by a considerate local, lighting a fire outside our tents but succeeding only in smoking us out like rats from a drainpipe. We left within a couple of hours.

At first we tried to sail but the wind had died and the sun burned with all its might, its power warming our very souls. Not much happened, we enjoyed the sun in all its glory and made the most of its powerful rays.

## **Ref. 25.35.20**

We camped that night a good distance from any civilisation, on a sandy island that glistened in the evening light. All around us peace filled the air, but not for long. Across the river a temple housed a small congregation of "Seta Ram" chanters who proceeded to sing. As if in competition and not to be outdone another band of chanters started to compete for air space even louder. The competition continued all night with each temple seemingly desperate not to be outdone by the other. An outstanding demonstration of faith and stamina.

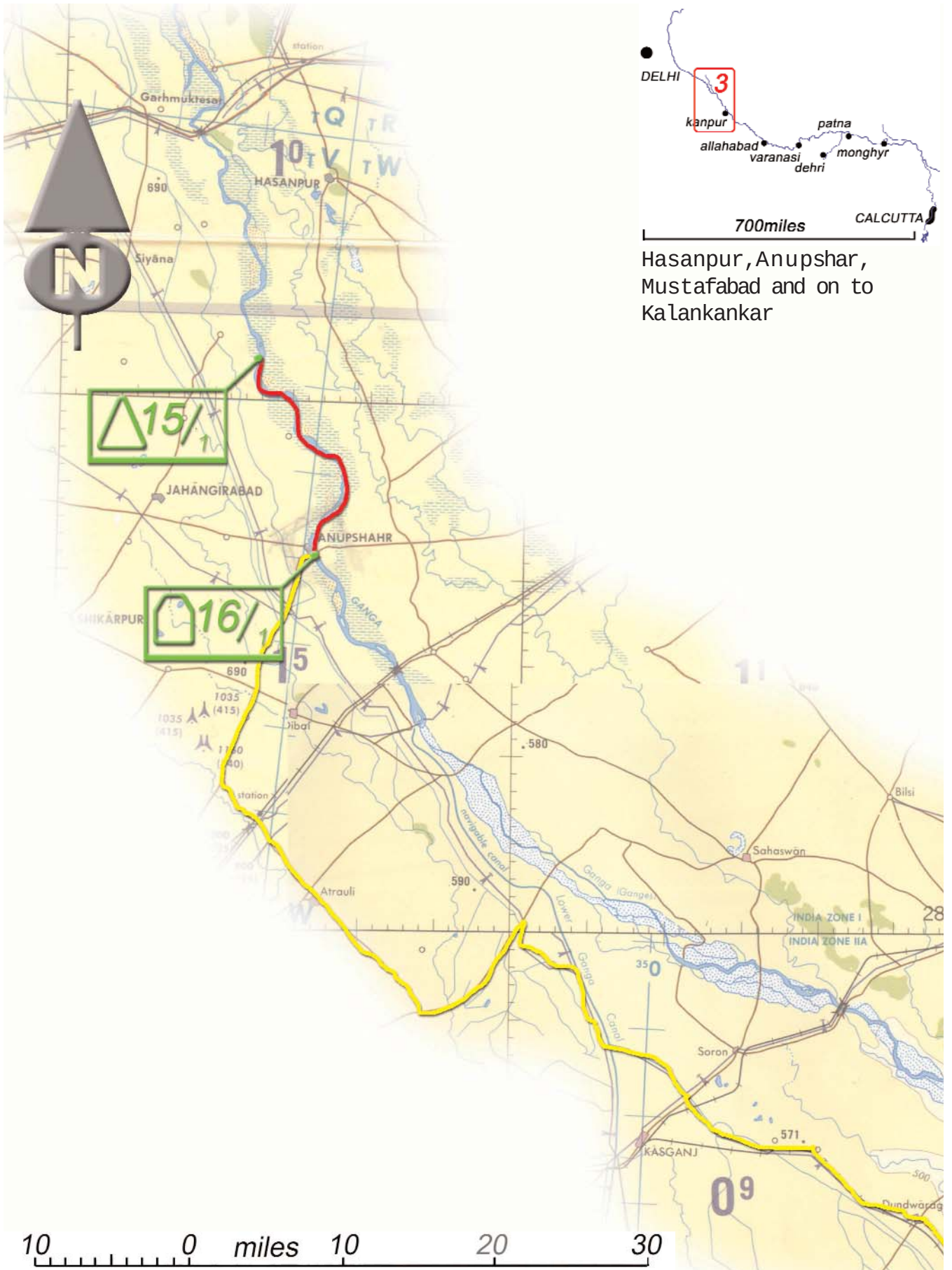




# SECTION 3

## CAMP 12 - KANPUR

| CAMP NO. | NAME        | GRID REFERENCE         | COMMENT              | KM | NO. NIGHTS | ACTIVITY                                                               | TRUCK TIME | DATE 1998 |
|----------|-------------|------------------------|----------------------|----|------------|------------------------------------------------------------------------|------------|-----------|
| 16       |             | N28.21.61<br>E78.16.45 | HASANPUR TO ANUPSHAR | 30 |            | TRUCK PORTAGE TO KEEP AN INDIAN CANOE AND KAYAK FEDERATION COMMITMENTS | 1          | 8/1       |
| 17       | FARRUKHABAD |                        |                      | 0  | 5          | 2 OF TEAM TO DELHI TO SORT MEDICAL SUPPLIES                            | 0          | 9/1       |
| 18       | CAMP 13     | N27.16.47<br>E79.39.04 |                      | 25 | 1          | CANOEING                                                               | 0          | 15/1      |
| 19       | CAMP 14     | N27.10.15<br>E79.49.70 |                      | 27 | 1          | CANOEING                                                               | 0          | 16/1      |
| 20       | CAMP 15     | N27.08.38<br>E79.58.42 |                      | 24 | 1          | CANOEING                                                               | 0          | 17/1      |
| 21       | CAMP 16     | N29.55.82<br>E80.02.05 | CAMPED IN TEMPLE     | 34 | 1          | CANOEING                                                               | 0          | 18/1      |
| 22       | CAMP 17     | N26.46.32<br>E80.08.78 |                      | 24 | 1          | CANOEING                                                               | 0          | 19/1      |
| 23       | CAMP 18     | N26.39.29<br>E80.16.15 |                      | 34 | 1          | CANOEING                                                               | 0          | 20/1      |
| 24       | KANPUR      |                        | HOTEL GAURAR         | 37 | 5          | COLLECTING MEDICAL DROPS AND UPDATING WEBSITE                          | 0          | 21/1      |



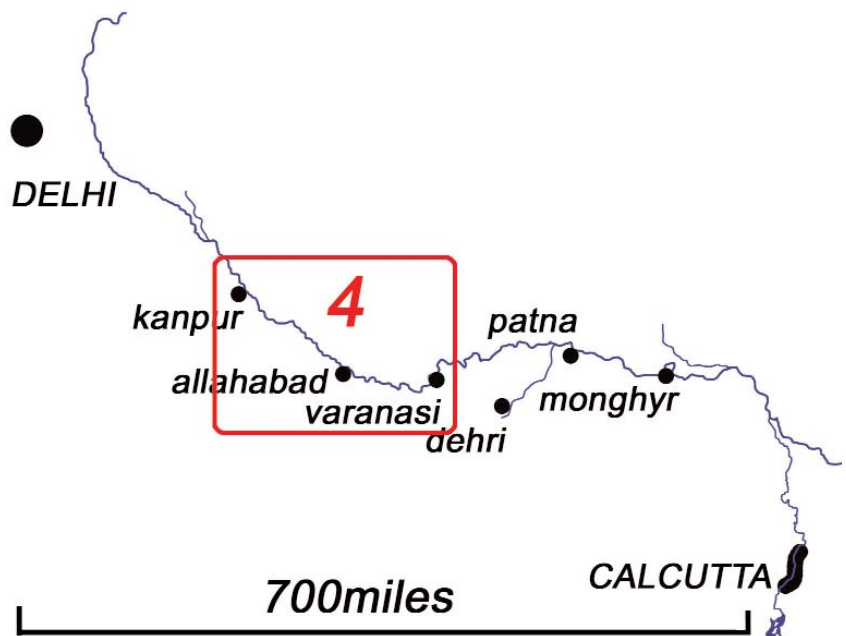




Hasanpur, Anupshar,  
Mustafabad and on to  
Kalankankar

# Section Four

## Water Rally, Allahabad and on to Varanasi



# Indian Canoe and Kayak Association Ganges Water Rally Allahabad Field Report

**The long first floor balcony of the Tourist Bungalow afforded an excellent view of the rain, also providing freedom for Mike with the luxury of a flat surface in his chair once more. As the team arrived the cultural exchange that we were all looking forward to was centred around a number of Indian and English classics; Hare Krishna and This Old Man became the two anthems for the rally.**

The rain came down for the rest of the day interspersed with some distant thunder storms. Intermittent power supplies led to some interesting toilet and shower experiences. We awoke early this time not to the sound of morning prayers but the cries of a bus depot manger calling out the departing buses. There are 200 million people in India so wherever you go it is busy. Allahabad was no exception. We spent the next few days up until 5-02-99 resting, regrouping, washing, repairing and up-dating the website.

A groom reception was held in the grounds of the Tourist Bungalow with two marching bands competing in a military stand off. Mike impressed the groom's relatives with his dancing and was promptly invited to the big "Do", down the road. The groom set off on horse back accompanied by his younger brother, they soon formed a cavalcade stretching 300 metres along the highway, with two marching bands a fluorescent light show and all the groom's family and friends. Their arrival at the bride's residence was heralded by a large firework display which would have given a British fire officer a heart attack. Over the next three hours the 400 guests presented gifts and had their photographs taken with the couple. Meanwhile a lavish banquet was laid on - the food was quite amazing, sugar encrusted animals (not real ones it was strictly vegetarian).

By the afternoon of the 5th other participants for the Water Rally began to arrive and we started to make our first contacts with Indian paddlers. A Major General who was co-ordinating the event briefed us on the format for the following day. Apparently it was to be a top notch affair with the Minister for

Human Resources flagging us off. There then followed a musical evening in the grounds of the Tourist Bungalow where some photographs and recordings were made.

Saturday was a 5a.m. start, after all the Minister couldn't be kept waiting. We were packed, loaded and breakfasted by 8 and off we set to the river. After the usual amount of confusion (always present at any official ceremony) we found ourselves next to the Kerala girls 1000 K4 (International Kayak racing discipline) team ready to greet the Minister. Over the next two days these girls proved their worth by blowing both the male teams out of the water and singing all the way as they did it.

The Minister turned out to be a genuinely nice chap and after a few false starts we set off briefly down the Yamuna and then back into the Ganga. We soon became known as the British rescue team. Mike and Chip going to the aid of a K1 whilst Mit, Nula, Resh and Eric gained an extra paddler each after rescuing a C2.

A hard day's paddle then ensued. 50 km in 4 hours, a new record for us. Having empty boats and food waiting for us at the other end were definitely mitigating factors. Upon arrival we were garlanded with various layers of flowers and given a snack. Unfortunately we missed our lift to the lunch site and had to wait two hours for the Uttar Pradesh Police team to get their act together. When that finally happened, after 10 minutes down the road we entered a small town and the coach driver only succeeded in finally making a 90 degree bend by removing a sewer cover on one side and a few tiles off the house on the other side after several attempts.

We made lunch 3 hours late and were quickly shuffled onto another bus for yet another rhythmical Indian bus journey. The cultural exchange being in the form of us singing Hindi songs rather badly and the locals being introduced to the tonal qualities of "This Old Man". Eventually we wore each other out and we fell asleep only to awake in a strange courtyard where dancers were working themselves into a spiritual frenzy around a fire. We were escorted through a maze of courtyards and to our food, nobody having a clue where we were. (It turned out to be a fort dating back approximately two thousand years with a few renovations in the mean time). After being fed and watered we were taken on yet another hair raising (well almost in Mike and Resh's case) mini bus ride to our humble abode. This unlike British places of rest did not have hot and cold running water; instead it featured hot and cold running lizards, a bit of a surprise when you pulled the chain.

# Allahabad to Varanasi Field Report

**A beautiful view of the Ganga from Chuna Fort provided the backdrop for the next festivities, a magic show. Major Bhindra stole the team's heart with his enthusiasm and pragmatism. 'You say a time, and nothing happens'.**

Before the Water Rally, you may remember our heroes and heroine (courtesy of a dodgy Lou Reed tape) were last seen laying down for the night in the noble confines of the Government guest house in Chunar.

Morning came all too quickly but not as quickly as our mini-bus driver who seemed to delight in driving full tilt with the music. Imagine the RAC Rally down your local high street. We were then escorted on a local sight seeing tour with around a hundred other participants. Some monkeys provided game entertainment at a waterfall literally taking things out of your hand whether you wanted to let go or not.

We then returned to the fort at Chunar. It towers over a massive bend in the Ganges, its dungeons telling the tale of the all too bloody, it's mine, no it's mine, history. Resh flagged off a local boat race in the afternoon while the rest of the team watched from afar as connections were made between the various boats.

The evening's entertainment consisted of a cabaret featuring a magician, some talented musicians and the grand finale a Krishna sect. These guys worked themselves up into a religious trance like frenzy and then skewered their facial muscles with long steel rods.

The finale came when some of the local lads became so enthused with the British Baritones that they gabbed the mike and executed a freestyle Hare

Krishna chanting session as the audience drifted off for yet more food.

Sunday the 8th found us breakfasted by 8a.m. at the fort and ready for the off. 9a.m. found us still at the fort and just about ready for the short journey down to the river. 9.10 Listening to one of our boats impale itself on an adjacent bus courtesy of the now infamous Uttar Pradesh police drivers.

10a.m. found us back by the side of the Ganga shaking our heads at a canoe that looked as if it had been punched on the nose.

10.15 four of us were in the Race, one following by car the other by road.

Slowly but surely everybody overtook us- the K1 K2 C1 C2's- the happiest crew were definitely the Kerala girls who sang an old sea paddling song and again blew their male counterparts out of the water.

A reasonably strenuous paddle 40km in 3.5 hours found us drifting into Varanasi (or Benares) the oldest continually inhabited city on earth. The view from the water is a testament to this with undertones of the Planet of the Apes film set. Half submerged temples rise ornately from the murky waters. Similarly crumbling palaces slide unceremoniously into the water as someone lights another funeral pyre. Once again large leaves containing flowers and candles appear in the river contesting the gentle eddies with the occasional fleshy corpse.

At the official gathering we were awarded a plaque. The whole team would like to thank Major Bhindra whose quote of 'You say a time and nothing happens' summed up most of the trip.

Also Mr Avinash Kholi who invited us and generally looked after our well being for the three days and especially for the nice things he said about us at the awards ceremony. We may have been last but we were far more travelled.

# Difficult Decisions

## Deliberations at Hotel De Paris in Varanasi

**In the colonial setting of the Hotel de Paris the team had reached its half way point. Medical considerations came to the fore. Following many deliberations the team decide to split leaving four to recover from Gastric and Urinary infections and back injuries whilst Suresh and Chippy prepare to continue completing the next section as a light weight push.**

Following the Water Rally we put up camp at the Hotel de Paris. Our journey was taking its toll; Mitesh, Mike, Eric and Nu were all exhausted. Gastric infections, and threats of urinary tract infections, were all looming their heads. Uncomfortable nights on trucks and loading and unloading of boats were also taking the strain on the team's backs.

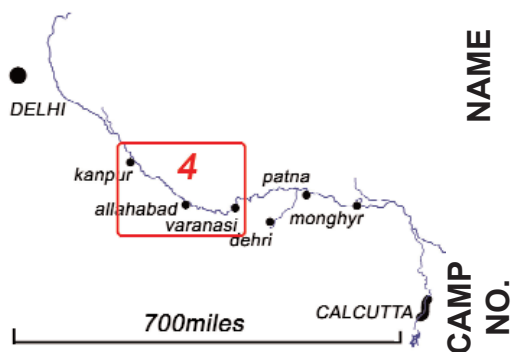
*The ever present need to push on to succeed, to complete the journey, meant that decisions had to be made.*

The team needed to rest yet it was getting hotter and we were running out of time. After some discussions (with two team members bed ridden and another nervously occupying the door to the bathroom), we made the decision to split the team. Discussions over, decisions made, we set about organising the science project and the impact that any re-organisation would make upon it. With only Chippy and Suresh fit to continue for the next four or five days, we consolidated our accommodation at the Hotel de Paris.

Chippy and Suresh set about putting together sufficient equipment to make a lightweight paddle from the railway bridge at Varanasi to Gaziupur, the nearest town to the border with Behair. This involved finishing fixing and cleaning equipment and rationalising our kit so that we only had one small dry bag each.

Local logistics were organised via an enthusiastic auto rikshaw walla who had

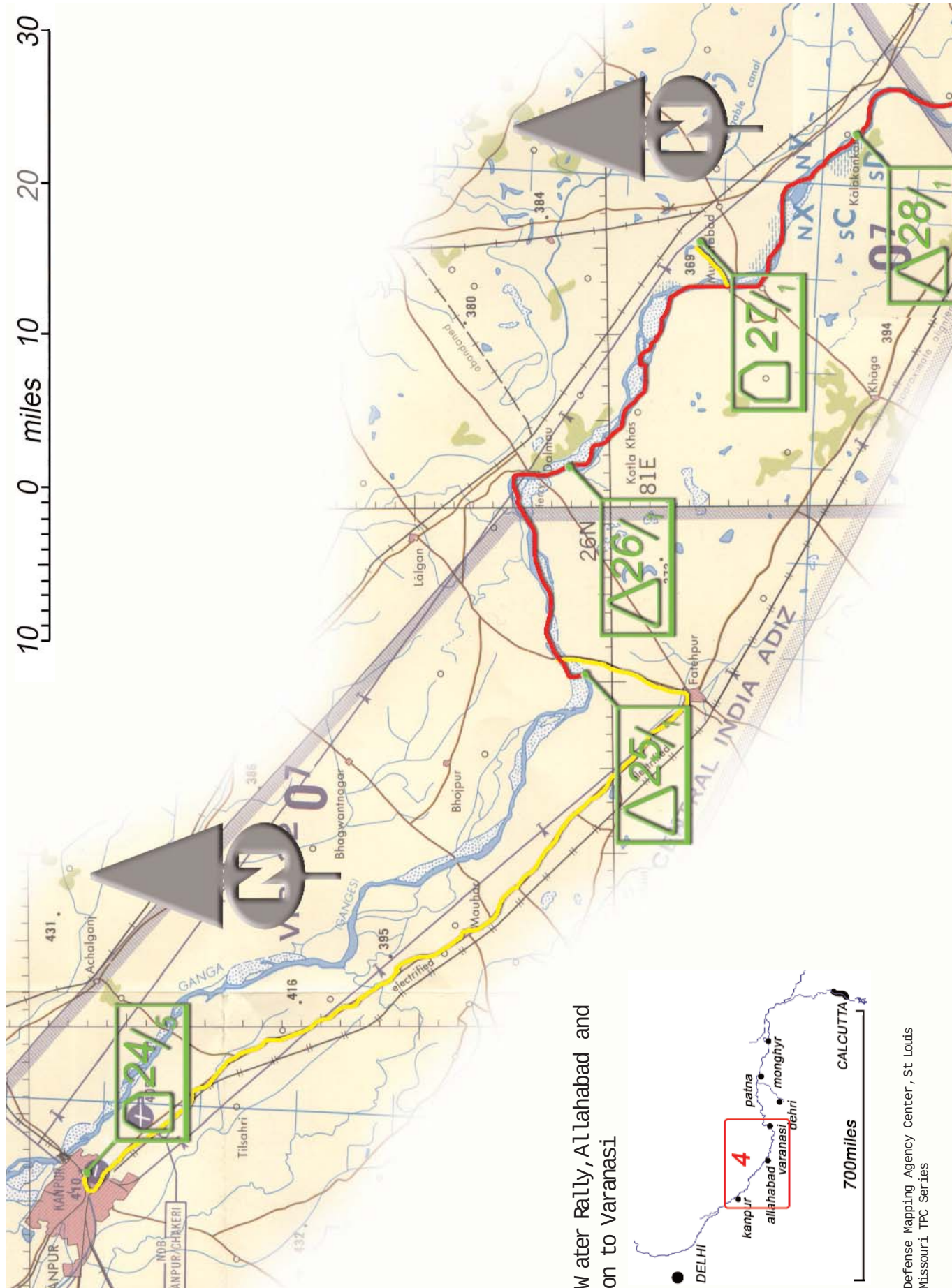
been following us during our stay in Varanasi. In a staggered convoy the single open canoe was loaded onto a rikshaw, a sight to be seen. An hour later Suresh and Chippy set off, bags and bodies loaded into an auto rikshaw with our enthusiastic rikshaw driver posturally challenged by a set of paddles.



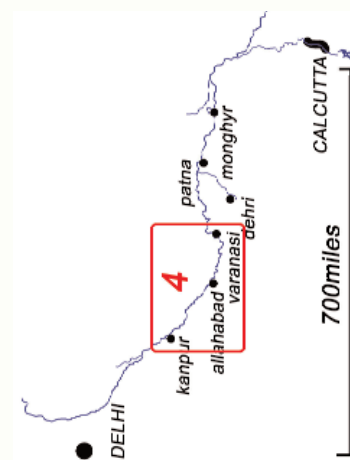
# SECTION 4

## KANPUR - VARANASI & LIGHT- WEIGHT CAMP 1

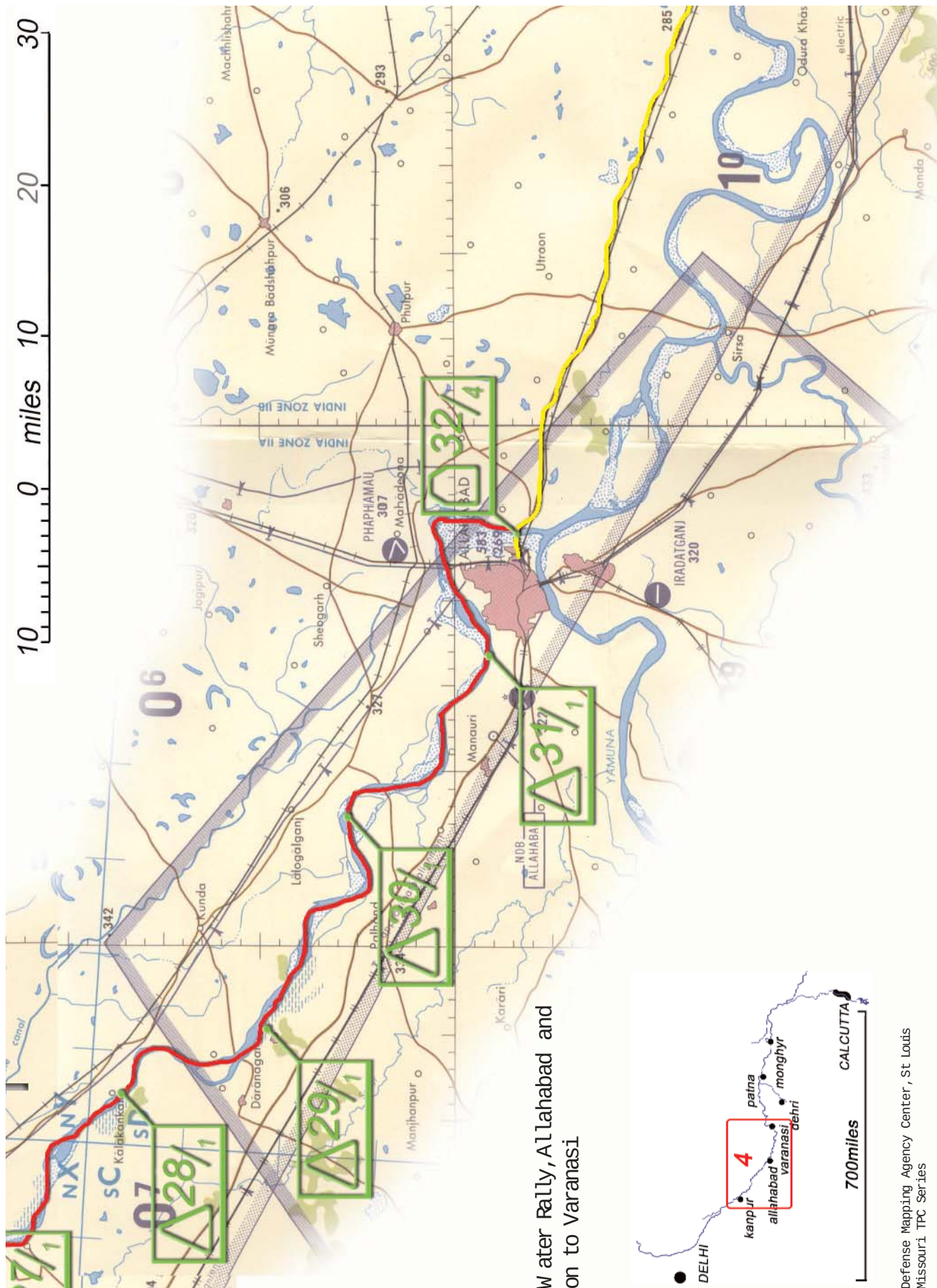
| CAMP NO. | NAME      | GRID REFERENCE         | COMMENT                      | KM | NO. NIGHT | ACTIVITY                                     | TRUCK TIME | DATE 1998 |
|----------|-----------|------------------------|------------------------------|----|-----------|----------------------------------------------|------------|-----------|
| 25       | CAMP 19   | N26.02.57<br>E80.51.75 |                              | 0  | 1         | PORTAGE TO KEEP ICKA AND<br>WATER RALLY MEET | 1          | 26/1      |
| 26       | CAMP 20   | N26.03.52<br>E81.02.87 | NEAR VILLAGE OF<br>DALMAU    | 24 | 1         | CANOEING                                     | 0          | 27/1      |
| 27       | CAMP 21   | N25.55.45<br>E81.13.29 | STAYED IN MUSTHAFABAD        | 33 | 1         | VISIT LOCAL SCHOOL IN<br>MORNING             | 0          | 28/1      |
| 28       | CAMP 22   | N25.47.23<br>E81.21.26 | KALANKAKAR                   | 27 | 1         | CANOEING                                     | 0          | 29/1      |
| 29       | CAMP 23   | N25.39.82<br>E81.25.98 |                              | 27 | 1         | CANOEING                                     | 0          | 30/1      |
| 30       | CAMP 24   | N25.35.20<br>E81.37.49 |                              | 29 | 1         | CANOEING                                     | 0          | 31/1      |
| 31       | CAMP 25   | N25.29.19<br>E81.46.64 | HIT BY THUNDERSTORMS         | 28 | 1         | CANOEING                                     | 0          | 1/2       |
| 32       | ALLAHABAD |                        |                              | 15 | 4         | GUESTS OF ICKA FEDERATION<br>FOR WATER RALLY | 0          | 2/2       |
| 33       | VARANASI  | N25.29.15<br>E83.02.01 | START OF LIGHTWEIGHT<br>TRIP | 80 | 4         | WATER RALLY                                  | 0          | 5/2       |
| 34       | LW CAMP 1 | N25.27.73<br>E83.08.47 | RIVER VILLAGE LEFT           |    | 1         | CANOEING                                     | 0          | 12/2      |

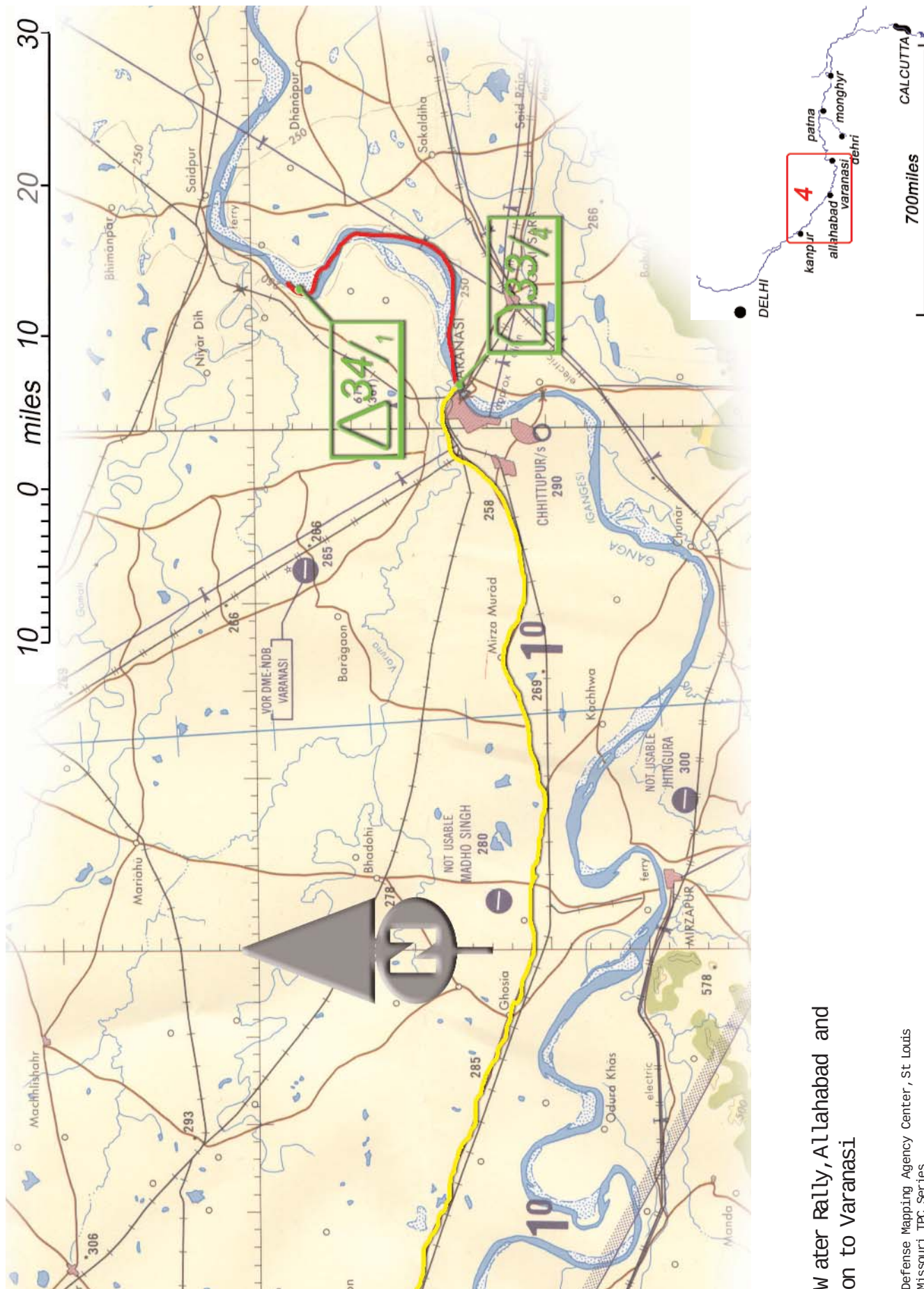


Water Rally, Allahabad and on to Varanasi



Defense Mapping Agency Center, St Louis  
Missouri TPC Series



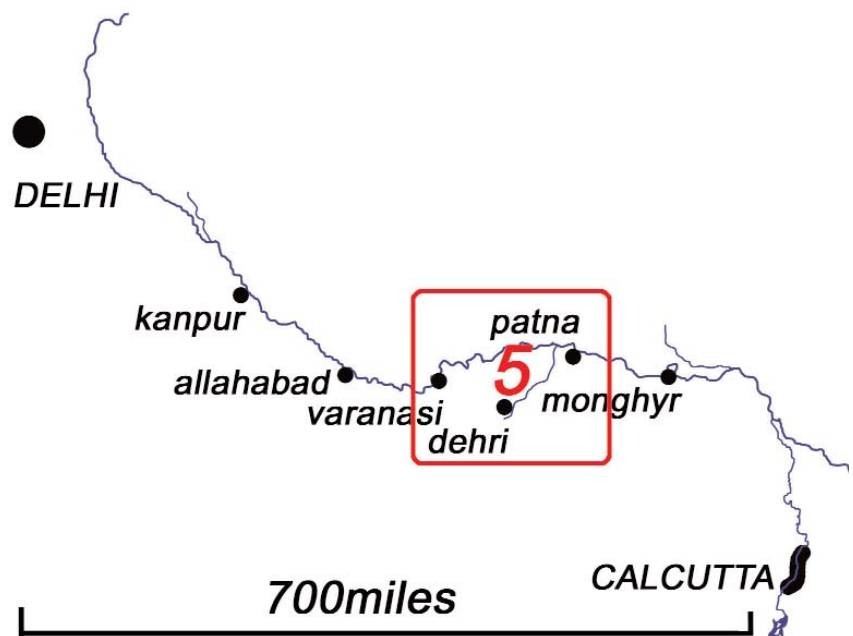


Water Rally, Allahabad and  
on to Varanasi

Defense Mapping Agency Center, St Louis  
Missouri TPC Series

# Section Five

Varanasi the Lightweight  
Push, the Behair Portage  
and on to Cacutta



# Lightweight Push Field Report - Attack and Hospitality

**In the first few days of the Indian spring two of the team travel ahead to get as close to the border with the state of Bihar, aiming to continue the documentation and science project whilst four of the team recuperate in Varanasi.**

Team leader Suresh Paul takes over the report writing to tell the story of the traumatic events which marred the expedition and had a profound effect on the group, individually and collectively.

**12.2.99      12:00   Varanasi Ghats**

**Grid ref 25.29.15   83.02.10**

We arrived at the Gaht to find the canoe in the midst of a crowd. Something that we had come to expect by this time. Without much equipment we were soon on the water. A quick water sample collection for analysis that evening and we departed swiftly waving good-bye to Nuala as we shot effortlessly under the railway bridge in Varanasi.

We had now been in India some three months. The rhythm was familiar and easy. With only one boat and very little equipment we made good time. Green banks played host to well ordered fields. Our almost sprinting style was co-ordinated by the regular rhythmical appearance of irrigation pumping stations. We stopped for our first night just as the sun went down. The last of the tuna catering packs donated by the Heinz Company was our prize. We bolstered this with a spicy lentil soup from the emergency rations.

The emergency rations had significance and were actually left over from the Coppermine River Expedition in 1987. The change in diet lightened our spirits as we finished the remaining camp duties, photography, science and journals. Things were going well, this was easy.

## **13.02.99 - Day Two**

**25.27.73 83.08.47**

**25.24.30 83.32.45**

As the sun took its first squint at the sand bank we had made our home we were almost finishing another meal courtesy of the Coppermine River Expedition – Big Bill's breakfast cereal had come back to haunt me. However, the high sugar content was welcome as we sipped our fruit tea.

Transcribing my notes back in the UK (writes Expedition Leader Suresh Paul) it strikes me that we spared no effort to make this sprint work. The team, especially those who could not get back to the river, felt that it was important to do as much of the river as possible. Unbeknown to me at the time, this was to be the last morning I would feel peaceful on the expedition until the expedition was over and I had seen the last of the team onto a plane or train so that they could start their journey home.

A clear blue day again, fields of hand crafted lines of budding crops. Despite the change of seasons the river seemed peaceful. It was probably us that had changed. Without the external distraction of other boats the landscape flew by. After a good 30 kilometres we started to look for a place to stay.

During the initial planning of the expedition all of the team had worked hard to ensure that we had as much contact with Indian Organisations as possible. One of the issues we explored during our UK and India based research was the question of safety. During our stops in towns and villages we had become aware of the law and order problems that faced Behair. With Viranasi placed only 100-120km north of the Behair border a plan was to take three or four days to turn off on the Northern border of Behair. By all accounts this was safe and free from some of the disturbances in the more broken sections of the river West of Behair.

*This did not prove to be the case.*

The following account is written in isolation in the UK following much soul searching and discussion with friends and mentors back in the UK. It is now September, it has taken me almost seven months to the day to be able to put pen to paper, and it was to be another three months before I could close off these pages having finally come to terms with the traumatic events of this phase of our journey.

On selecting our second camp of the lightweight push, within sight of the red flag of a Sadhu's retreat, partially hidden from the river by large fishing boats rotting on the shore, both Chippy and I felt a little uneasy. Our spirits settled following discussions with the local Sadhu who gave us permission to lay our heads on the banks of the Ganges, this time just up the bank from the spot where he took his daily ritual bathing. As dusk fell we were visited by a group of villagers bringing a large bag of sumptuous tomatoes and eggs. Bartering over and done with, we settled down for the night. It was the night of February 13th. As I drifted off I remember thinking if we start early we can be off the water in time for me to ring home first thing on Valentine's Day. Summer was fast approaching and we were now over half way to the sea. With no mosquitoes I slept with the front aperture of the tent open.

At 4a.m. both Chippy and myself were woken up by the Sadhu saying it is time to move, a pack of dogs will disturb you. We acknowledged our host but were so exhausted from the previous day we could hardly move. With hindsight I feel that the Sadhu was trying to warn us, although during the conversations with him later he attributed all actions to karma or fate.

*What happened next changed the tone and content of the remainder of the expedition and is the reason it has taken all this time to put pen to paper.*

It must have been 5a.m. Something was wrong. I could feel something hard against my teeth. As I opened my eyes my jaw must have loosened. I could now taste sweat on metal. I was reminded of the taste of the metalworking studio back at my old college in Sheffield.

I focussed to see a bead of sweat fall from a tensed brow. No nose, no mouth, just the chequered pattern of Indian cloth. It was a pistol in my mouth. I rose slowly as the pistol pulled on the top of my mouth. As I got to my feet the steel barrel left my body. I felt violated. I stood within myself expressionless. My thoughts went to my body – stand tall – within yourself. I breathed and smiled – the most generous smile I could muster at 5a.m.

"Aram Se Aram Se Teick He Tieck He Shanti Shanti"

My gaze widened from the face of the face of the armed boy who was now nervously shaking his pistol at me. 'Chippy' I shouted. Chippy was now being pulled from his tent, he was more vocal. The three other young men also dressed in traditional Indian lungi and sandals, simple crumpled cloth pulled across their faces, cuffed Chippy around the head with the butt of a pistol. My earlier request for peace and calm in broken Hindi had been ignored.

'Money, Camera', the pistol moved gesturally.

'Money, camera, passport' the pistol moved ever more insistently. The fields around us were silent. These were the Dacoits that I had

read of in Maria Coffey's account.

As the demands became more frantic I produced money then another instalment, a small camera, then something more. The four of them seemed to dance, waving pistols and pushing Chippy.

*Let them take your money, that's OK.*

Suddenly they spied the hard plastic case or peli box with my two Olympus cameras in my tent. They grabbed it, taking Chippy's also.

Not the cameras – how can I tell the story, I thought – what do I show the kids. Now loaded with all of our possessions bar the food, paddles, science kit, they started to make their escape.

We ran after them – all I could think of was the photographic record of the journey.

They made for a boat and launched as we shouted "Daohat Dachait", in some vain attempt that a villager would hear us. I felt sick. Betrayed. I could not just stand there. My mind went back to seeing drunks threatening my family in London. Blood coming from my father's head. Tears running from my mother's eyes. All those years ago. The frightening darkness of North London threatened to consume me in my moment of weakness.

You have got to stand for something. The thought of being rolled, just did not seem appropriate. With no talking, Chippy and myself found ourselves. Like life guards running to the surf, Chippy and I were carrying our empty boat to the bank, breathless and angry. I placed my first paddle stroke in the dawning waters of the Ganges. The boat moved quickly towards the fishing boat. The plan had been to get to the pumping station to raise the alarm. The fishing boat changed course.

Within minutes we were face to face with the clothless faces. Anger boiled over as I started throwing their nets in the water shouting and demanding our kit back. Suddenly a stick came towards me. I blocked arms, slightly bent, returning a blow to the hand of the closest bandit I began to move. Then another blow. We were now mid-stream. Somehow I had lost sight of something. I saw a gun and grabbed it managing to fumble it into the water. The stick arrived again. This time it hit my left hand. I let go of the blade end of the bent shaft Grey Owl paddle, managing to swing it sufficiently to hit another bandit.

Chippy in the front of the open canoe came face to face with the young attackers having managed to pick up one of the pistols from the bottom of the tattered fishing boat. He was now gun to gun with one of the bandits. As I grabbed the bags my vision widened once more. Suddenly Chippy was slumped in the bow of our Peace River Cruiser, blood streaming from his

head.

I turned Mitesh's cranked paddle around pushing frantically backwards, as the distance grew between our blood stained boats.

We arrived back at our camp to an ever growing crowd of local villagers. The Sadhu arrived with a hurried graceful gait dressed only in saffron robes.

As the sun rose I was washing the blood from Chippy's close shaven head. The water already purple from the potassium permanganate added to the blood was now black, glistening on the dew laden grass as it ran off Chippy's ears. The blood kept coming. I decided to shave his head. I had to find out what was going on. This was the fourth head injury Chippy had suffered in a year. He was in an erratic and excited state. It was hard to get him to stay still. As I shaved, the Sadhu began to talk,

"There is a doctor in the village. Take him there".

At first I was unsure, not wanting to trust anyone. Then the head man arrived. I let Chippy go, his now shaven head tied in the classic St John's manner.

I packed hurriedly. A team of villagers now helped take all our equipment to the Sahir's compound. I looked up briefly at the triangular red flag that flew high above the hut. Flapping calmly in the wind of the dawn of the Ganges my mind left the orange disk which was balancing on the early morning tightrope of the horizon of the Ganges Plain.

I was now alone in a cycle of Indian village hospitality. My mind raced to Chippy, wondering if he had found the doctor. He seemed strong when he was taken away with the locals. I rushed towards the village as fast as my guide could take me. I was handed breakfast. Knowing that the fastest thing would be to eat it, I forced down the food, burning my tongue.

I arrived at the doctor's surgery, some 3 kilometres from the river, about 20 minutes after Chippy.

Are you O.K.?

Seeing a needle on the side, all I could think of was HIV. Have they used clean needles, I whispered? Chippy nodded only slightly - despite it all he had not lost his smile.

The morning surgery had been postponed. Windows full of faces. Chippy bit on a pack towel as the doctor tended to the Y-shape wound on the top of his head. Chippy had received a large blow to the head during the fighting.

The stick had left its mark despite blocking the stick with his right arm. Under the helter skelter roller bandage the swelling was growing. Following a brief inspection the doctor replaced the bandage. A mix of bandage, Buffalo top and worn track shorts covered Chippy's wiry and excited frame.

The doctor finished up the stitches with a small tug which seemed to be connected straight to Chippy's eyebrows. A snip with a pair of scissors and the eyebrows returned to place. We were escorted back to the head man's house. Villagers, photos and smiles and the sun accompanied us back to the compound where we were to stay that night. We flaked out on a straw bed in the main house. Everyone was so concerned, the villagers were embarrassed about what had happened.

More and more people arrived. All just sat and talked looking inquisitively at me from time to time. Perched now on a square wooden sleeping table, I could hear Chippy's snoring in the back room. Talking, eating and drinking was the order of the day. The hospitality was astounding. Chip having nearly suffered death by bandits was spared the death by Roti. All I wanted to do was sleep, my adrenalin was just wearing off. It was now 4p.m., 14th February, 1999.

As the day came to a close the visitors from the other villages left, leaving just the family. On his evening rounds the doctor came to check us out once more, an experienced eye under the oil lamps. The blanket shawl had seen many houses, his working area covered 10,000 people over countless villages.

We slept on the veranda off the male only house. It must have been 2a.m. when a piercing light woke me accompanied by the barking of the dog who had been scolded many times that night for whimpering. I woke up once more to guns surrounded by four men. Here we go again, I breathed in. The group of men turned out to be from the local constabulary.

Like shadow theatre the story was played out in silhouette on the flaking wall behind me as I mixed Hindi English, gesture and re-enactment. They left following chai saying they would make inquiries up river.

Morning arrived all too soon, decisions had to be made. Chippy, despite getting the OK from the doctor, needed to be checked out. All Chippy talked about over breakfast was how fast he would recover and when he would be able to get back on the water. My thoughts were of how I could describe this to the outside world. In the back of my mind all I could think of was how to keep Chippy off the water, so that he did not damage his arm further, whilst ensuring that he was able to put the incident behind him and gain some sort of emotional and spiritual closure on the journey.

Chippy seemed stable. The nearest hospital was some forty minutes away in Gahzipur. Despite my reservations Chippy accepted a lift to the local hospital

and police station. The plan was for me to go to the local government rest house, store our equipment and then find him at the local hospital. As I watched the bandaged squirt boater, ex-motorcycle courier leave on the back of the local tax inspector's moped all I could think was, "would I see Chippy alive again?"

On my own with the head man, his household, his guests and as many distinguished villagers and children that you could fit into a small village compound, I found myself – back inside myself, breath, smile be still.

With Chippy already en route to hospital I was charged with the task of getting one canoe, four or five bags and three paddles from the Tax Inspector's residence to the town of Ghazipur. The evening following the attack all the equipment had been moved by a bare footed procession from the holy ground of the Sadhu's enclosure through the green fields of Denhia (Coriander) to the dust filled ruts of the main road into the village. A large tree had provided cover for the loading of these strange shaped plastic objects that was until then affording our travel down the Mother Ganges.

The newest tractor in the village had been brought out gleaming in the evening sun. The eldest son of the family had driven us back to the Tax Inspector's house. I sat perched on the metal mudguard chewing sugar cane. If I had been able to escape the previous 48 hours I would have been a boy again in Calcutta chewing sugar cane and playing on the lorries and cranes of my Grandfather's transport business in Howrah at the end of the GT road. My journey through the village by tractor was short but memorable, we were like heroes coming back from war. It felt absurd, and so far removed from the journey that we had proposed in the comfort of the UK.

For my journey to Ghazipur the head man had arranged an armed guard for me and the equipment. As we waited I asked if I might see the farm, in a vain hope that I might walk off the hospitality of the last 48 hours. I took photos of the fields and the farm machinery, each frame providing an opportunity for the field owner to stand proudly amidst a square of lush vegetation.

The canoe sat like a peaked cap in a hot day, lying across the cage of the uncanvassed ex-army truck. A thousand hands must have waved me off as the truck pulled away. Shade then sun then shade as we travelled the dusty roads. The brick works alongside the road parted on occasion to make room for huddled single-story brick settlements.

Following yesterday morning's activity, all I can remember thinking was of the big bad wolf. Although I was immersed in India travelling on the inside of this cage with a peaked cap, the outside world seemed a long way away. The frame of the truck threw pictures at me second by second. When we stopped the mud wall frames of the fields seemed to re-enforce the frame of the truck.

As the truck passed through village after village, the feeling of being a cage animal was re-enforced, at each stop in every village I was able to put into context a face who had examined us in the compound back in the village. Villagers lined their narrow streets. Food, fruit and tactile gestures were forced through the bars of the cage. It was no longer me watching the environment it was the environment watching me.

We finally reached the tourist lodge on the GT road in Ghazipur. Just as I untied the boat from the framed truck a police jeep arrived, Chippy beaming.

“There are people dying in the hospitals. Not just dying – it’s chaos”.

I remember feeling quite relieved that Chippy was well enough to think outside himself.

“You get better treatment if you have an armed guard”, another even broader smile, and another sigh of relief. Following more descriptions of the hospital it transpired that Chippy was only suffering from superficial head wounds. The tourist officer translated as I thanked the policemen who had escorted Chippy around the hospital. The squad posed for photographs, with Chippy in his Red Cross-style turban and arm in sling, body still sewn into his Buffalo fleece top.

As they left and Chippy rested, the gravity of the situation returned. If the road ahead into Bihar is reported to be more treacherous, then how is it going to work. How do I communicate with the team. What are the rest of them in Varanasi thinking. All the reasons for not splitting the team ran around my head.

Being away from the rest of the team made me feel isolated. I felt and still feel (as I write this on the train pulling away from Willesden Junction in North London) responsible in some way for the attack. In the empty guest house on the main road from Varanasi to Calcutta (the Grand Trunk Road), rightly or wrongly I felt that I had failed a member of the team whom I had asked to travel the Ganges with me and was now lying in bed bandaged. The past portages that we had been forced to make to stay on schedule lay heavy on my mind. The remainder of the day was spent thinking, evaluating and double guessing. It would be evening before I could speak to the team.

With mosquitos biting in the half light and noise of an open roadside telephone kiosk I rang the Hotel de Paris in Varanasi. No reply. I returned to the kiosk later in the dark hoping that I would not see the mosquitos, I thought if I don’t see them then it would not matter.

This time I got through, a brief mosquito bitten conversation, as I watched the counter on the ISD booth. I closed the conversation quickly, returning to the guest house so that the team could ring me back in the hotel in the hope that

I would be able to hear, talking had been difficult, hearing impossible on the hard shoulder of the G.T. road, the M1 of India.

My conversation with Eric was calm, Eric was renowned for presenting a balanced view of situations. The tale unravelled in a limited way as I balanced charged with emotion in the motionless hotel lobby. The stone floor felt cold like a cry for help falling on deaf ears. The only other time I was to tell the story in India in any great detail was on the moonlit sandbank opposite Nadwadip, within the sounds of the Centre for Krishna Consciousness as we worked our way toward the metropolis of Calcutta. I would have to walk away from the team following the forced reconstruction of events on the 14th February.

There was no walking away this first time. The stool held me captive. As I ascended the alternately lit stairs I felt as though I was crossing lines, lines or boundaries that I had crossed during the incident. I would have to cross these lines once more on the way down. The closing weeks of February 1999 brought sunshine and heat bringing alive the colours of Western India.

The rest of the team would not be able to get here for 36 hours, they needed time to pack and arrange an armed guard for the journey across the restless state of Patna. The veranda at the tourist lodge was now filled with a comparatively small amount of equipment. As the sun watched on, I paced... waiting for the remainder of the team. The day went slowly with only one incident. The Tax Inspector from the village who had given Chippy a lift on the back of his moped arrived as the dusk fell and the air along the side of the GT road was filled with the nightly blowing of horns as trucks rushed through the night.

"I have wine", smiled the thin cut Tax Inspector as his lips curled under his full moustache. A bottle of whisky was produced. Chippy sleepily declined the offer of Indian wine preferring his pillow and the whirl of the fan.

What followed was like a scene from the film 'The Sting'. A polka dot lit room with indescribable edges hidden in the darkness. The table and chairs scraped, re-arranging themselves under the buzz of a single electric light.

As we settled, instructions were given to the hotel's house boy. Glasses and water were fetched and finally a plate for the prepared fruit which appeared from the neatly tied bag that had been packed by the Tax Inspector's wife. Introductions and a large measure of whisky and fruit. The conversation that followed was intense and stimulating, mainly centring on the Ghandi Gee - the Mahatma and democracy in India. I kept my gaze low to the table, the light was hot and as intense as the increasingly slurred conversation. It was going to be a long night.

Conversation led into myth and legend. It was almost like I was being given a

grand tour of Indian culture to ensure that my lasting memory of India would not be the Dacoits (Indian Bandits). The bottle finished and the Tax Inspector and his two friends wound their way along the corridor to the front of the hotel insisting that they were OK to drive, wordy informal goodbyes followed, I thanked each of them for their hospitality, they left saying that it was their duty.

The lobby empty, I was left to the hard floor and the alternate moonlit stairs once more.

The morning arrived, the team followed. Chippy and myself found ourselves under interrogation, a potted history of recent events painted a scant picture of the attack, the hospitality, the medical facilities and the armed guard. Both Chippy and myself were strangely pensive, our conversation was hesitant; hard to talk openly of recent events, we focussed on the task ahead.

The rest of the team seemed back to their old strengths: Mit had recovered from his Gastric infection, Eric's back was better for the large part, the exhaustion that Nuala and Mike had felt had disappeared.

With the truck loaded and the set of three boats back together we were on the road to Patna, in the troubled state of Bihar. Our armed police guard riding shotgun, sat in the front, guns highly visible.

The journey to Patna was uneventful although the team felt as though it was going into the lion's den. We needed to visit Patna for two reasons; to gain another escort from Patna through to English Bazaar where we proposed to rejoin the river, on the border with Bihar, West Bengal and the Indian border with Bangladesh. We also had planned to collect another consignment of medical supplies, for Mike.

We arrived in Patna to see the rickshaw wallas asleep on their cycle rickshaws. The roadside communities huddled around the fires glowing with hope against the mist of the late February night on the banks of the Mother Ganga. It was past 2 a.m. Mitesh was exhausted, as the interpreter he felt the pressure, feeling as though he would be forced into the front line of the situation, Eric took pains to support him as did the rest of the team. The pressure was still there. It was clear that we needed to get out of Bihar and get the team back to the rhythm of the river as soon as possible.

We found the tourist lodge after taking directions from the night porter in the five-star hotel just up the road. Mit jumped the gate to the compound and woke up the night porter. The team breathed a nervous sigh of relief as the night porter yawned, agreeing to open the door. He pulled back his home-spun blanket to reveal the doormat, on which he slept. We gently filed through trying not to tread on the night porter's bed.

We stripped the truck of valuables and set up yet another chain to get the team and our dry bags to the fourth floor. Mike usually very mobile found the four flights a bit wearing, it had been a long and uncomfortable journey.

With the team back together again installed in rooms in its usual pairs, the truck parked, I wandered to the roof terrace. What was all the fuss about, Patna seemed at 3 a.m. to be just another Indian city, the usual hazards, rick-shaws, pickpockets, nothing special. For some reason I felt that I should worry. After all I was supposed to be leading the trip.

The next few days were to be the most mentally draining time on the whole journey for the team. As I breathed in the night air all I could think of was the attack, my mind wandered back to Alaska some ten years before. Sat around a camp fire at Caines Head near Seward, a game of twenty questions designed to break the ice between a youth expedition team that I was part of, name your favourite animal, your favourite colour, each line of inquiry was designed to provide you and the group with some insight into your inner self.

One question burned in my mind, the team leader John Hillhorst a tall slim New Zealander with eyes that looked beyond the day to day. What would you do if you were confronted with a gang in a dark alley, who were threatening you?

Smile, said John, Smile! His favourite animal had been a cat and colour blue.

I would have to leave my personal thoughts behind and get on with the day to day.

The next two days found the team venturing away from the tourist compound to change money, collect mail. Mitesh and Eric took on the biggest task to negotiate with the local head of police for an armed guard to take us from Patna to West Bengal.

Tension in Patna was high. The political situation was unstable to say the least. Presidential Rule had just been instituted, overruling the local government.

And writing up my notes back in England, time and other happenings and understanding putting the drama and aggression and anger of that February 14th into perspective, I have had time to reflect. Back home there were still family and a friend who wondered why I had not picked up the phone on St Valentines Day!

Romance!



# Behair Portage Field Report

## - A journey down the G.T. (Grand Trunk) road to Calcutta

**A two day truck journey that took the team from Bihar to West Bengal, and a new base in Calcutta from which the team could organise the journey down the final section of the Ganges - known in West Bengal as the Hugli.**

**Suresh Paul continues his description of the events and emotional effect of the journey by road.**

It had become clear that the road to English Bazaar was too dangerous, the threat of bandits and road pirates lay heavy on the truck crew, Mitesh was doing his best to ensure that we were not left stranded in Patna placating and negotiating with our hosts in his third language - Hindi. We needed to leave. The team felt uneasy for the first time in India. Eric and Mitesh had spent two days negotiating, tracking down the new Chief of Police who seemed to have his hands full and despite his best intentions was unable to tender any support.

Long debates between team members followed the nightly curfew that we had imposed upon ourselves. The need was to paddle as much of the river as possible, but with recent events the team's confidence had been shaken. There was a clear need to ensure that the emotional needs of the team were met, we needed to find a way that would allow all of the team to complete their own personal journey down the Ganges whilst at the same time meeting the requirements of the expedition. Aircraft and train portages were assessed but rejected due to the length of the boats and the cost. We asked the driver in for a tea trying to explain our predicament. Following a short discussion we found that he would be happy to proceed back to the main Grand Trunk road so long as we were able to cross the hills during daylight. The plan was set. We would make a dash for West Bengal and then onto Calcutta to stop and re-assess the situation.

Bags were packed, and the following morning were marshalled at the front

desk. The bill paid we made a hurried chain to get the bags and the team into the truck, the trick was keeping Eric busy with the light bags to ensure that his stubborn enthusiasm did not damage his back which was still on the mend. As we left Patna we breathed a sigh of relief whilst at the same time taking a deep breath for the road ahead. Mike and Chipp sat up front - both injured, they required as much comfort as possible. The quality of the road varied, the most difficult sections of the windy road when combined with the potholes made the back of the truck an interesting place to be, even for the most hardened white water paddler.

As the truck and its crew transported us and our three canoes through the hills the sun began to shine, I stood at the back of the truck watching everyone. The tiredness of the past week began to catch up with me, my mind raced back and forth evaluating the decisions that we had made. My mind went back to the previous night in the lobby of the tourist hotel in Patna. Chippy and I had sat up late and in a round-about way came to the resolution that on no account should force be met with force again. Scribbled thoughts in the back of the note book, from under our head gear, Chippy in Eric's rabbit skin Western Style hat that he used to disguise his head bandage and me under the grimy peaked baseball cap used to hide my bald patch, we had pulled together a list of rules to follow if the team were threatened once more: disperse valuables, and give them what they want. I remember thinking that it all felt a little extreme for a simple journey down the River Ganges. On reflection on another train in the Autumn of the UK many of the concerns seem unnecessary.

Sat in the lobby trying to avoid the ankle level sea of mosquitos which were banqueting on our sandalled feet, we felt that we were doing something, something that we hoped would ensure that the rest of the team would not go through the stress of an attack. Support is no good unless it is organised.

Darkness closed in. I could not sleep. I surfed the back of the truck trying to maintain a good vantage point whilst at the same time keeping out of sight as the driver had requested. We were now on the Grand Trunk road heading for Calcutta out of the State of Bihar. Eric was in a world of his own whilst Mitesh and Nuala were head down in their sleeping bags under the boats. Chip and Mike still both suffering from an injured arm and Mike also suffering from back strain, were trying to make the best of it in the front cab with the driver.

It was now late evening. We needed to stop. The team was hungry and the driver had been driving for ten hours. We pulled cautiously into a roadside stop. Mitesh went to check things out with the truck driver, the rest of us kept our heads down trying not to draw attention to ourselves and the cargo. With twitching heads we took our places at the plastic coated tables. As we began to order a group of men gathered at the doorway to the Roti stop, indicating to the driver they demanded that they talk to him alone. We resisted,

but reluctantly had to concede. They pulled him into the back of the restaurant, we gathered ourselves ready for a group exit. I watched Mitesh with one eye and the rest of the environment with another. Mitesh was under a tremendous amount of pressure, the rest of the team urgently wanted to know what was being said.

The gang returned. Eric already up and getting a drink went over with a disarming smile. We tried to follow. Stern faces and hard looks turned to pushing. We withdrew and awaited the outcome of Eric's smile. The ex-bouncer and body builder let the moment ride, tense negotiations followed, as a result of Eric's smile we managed to leave the truck stop without the large crew, who had threatened and hit the driver. In the truck following a very sharp turn onto the main road we found out that the gang had tried to persuade Eric that we were somehow being conned and that we would get a better deal from truck drivers that the gang knew. It had been suggested that we transfer all our equipment and get the money off our driver to give to the gang. Eric had resisted stating that it was an organised tour and that all arrangements were fixed. We will never know what that gang actually planned, in the erratically speeding truck the post-mortem continued for a good hour.

We were now desperately in need of finding somewhere to eat, Mitesh felt that strain as did the rest of the team. The light fog coloured the air as once again we headed towards West Bengal. Late evening we finally stopped at a place where we were able to relax enough to eat Roti, Dal Bhat and Coke. We carried on to West Bengal and Calcutta. Palm trees opened out on the road-side as the language changed to the rhythmic sounds of Bengali.

Another dawn bounced its way through the cracks in the side of the truck. The team was happy and together for the first time in four weeks. However there was trouble in the cab. Mike's legs had spasmed during the night providing further damage to Chippy's fragile arm. Luckily the pace slowed as we approached the metropolis of Calcutta.

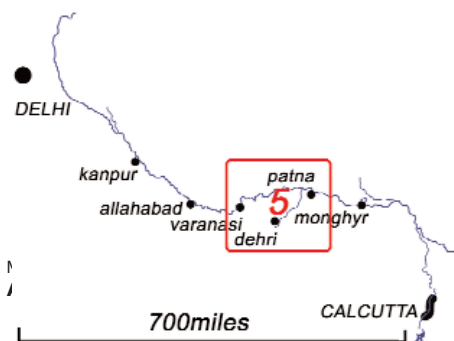
Sat on the top of the truck I was particularly nervous. We were approaching the Paul family home city source of my distant childhood moments, stolen family memories. In the morning sun sitting on the top of the cab the elation in the team was evident. As the truck slowed in the traffic we took turns to jump down and buy bananas, coconut and drinks from the roadside sellers.

Our final destination in Calcutta was to be my Uncle's house in Howrah. The most fulfilling moment of the journey for me was hearing my name being called by my Uncle and jumping down from the roof of the truck to be face to face with the man whose Meccano models and smile warmed my few childhood memories in India despite the passing of twenty five years of European winters. With the smiles and hugs the stress of the past weeks floated away to the sea with the fate of the rest of India.

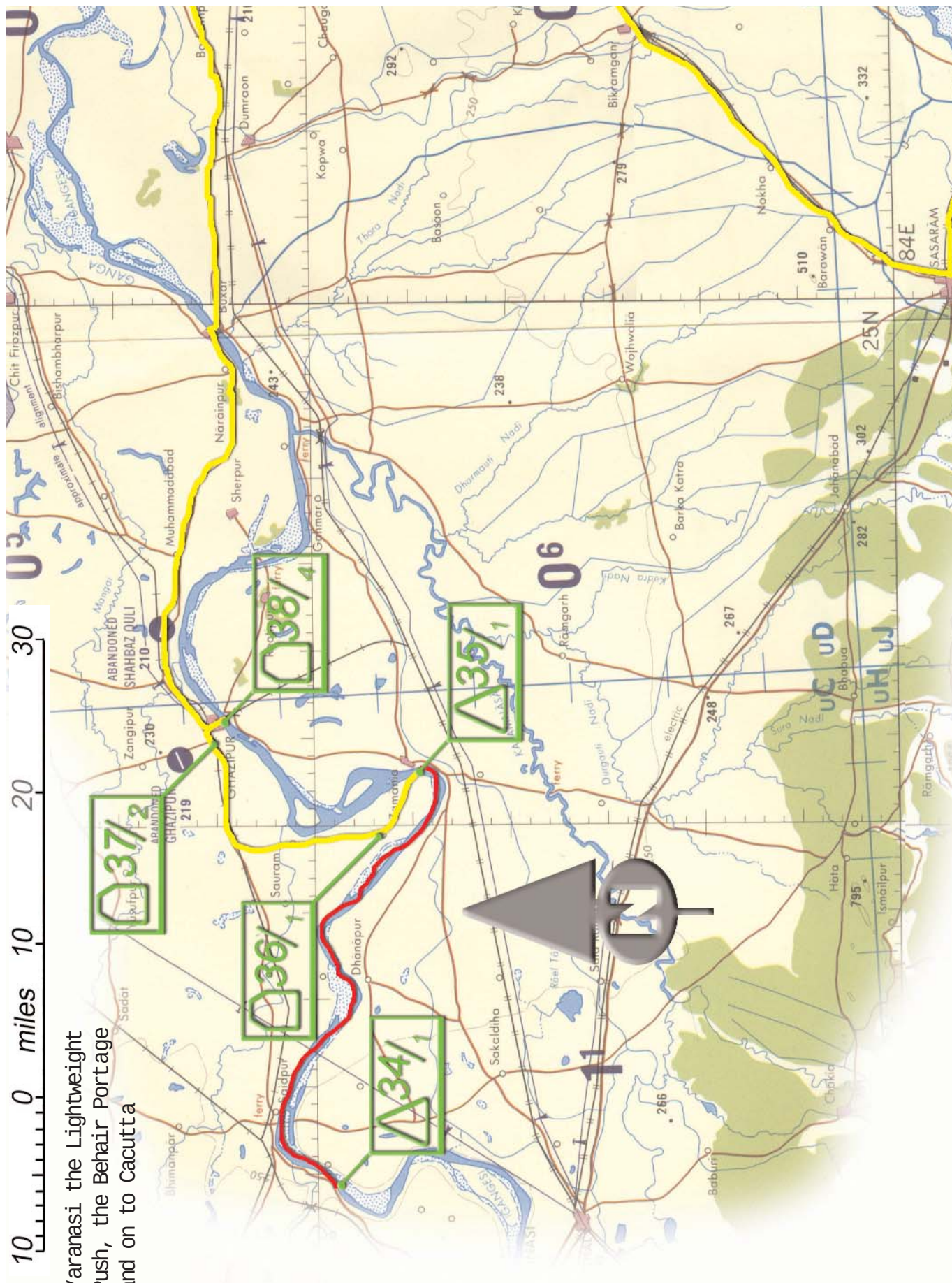


# SECTION 5

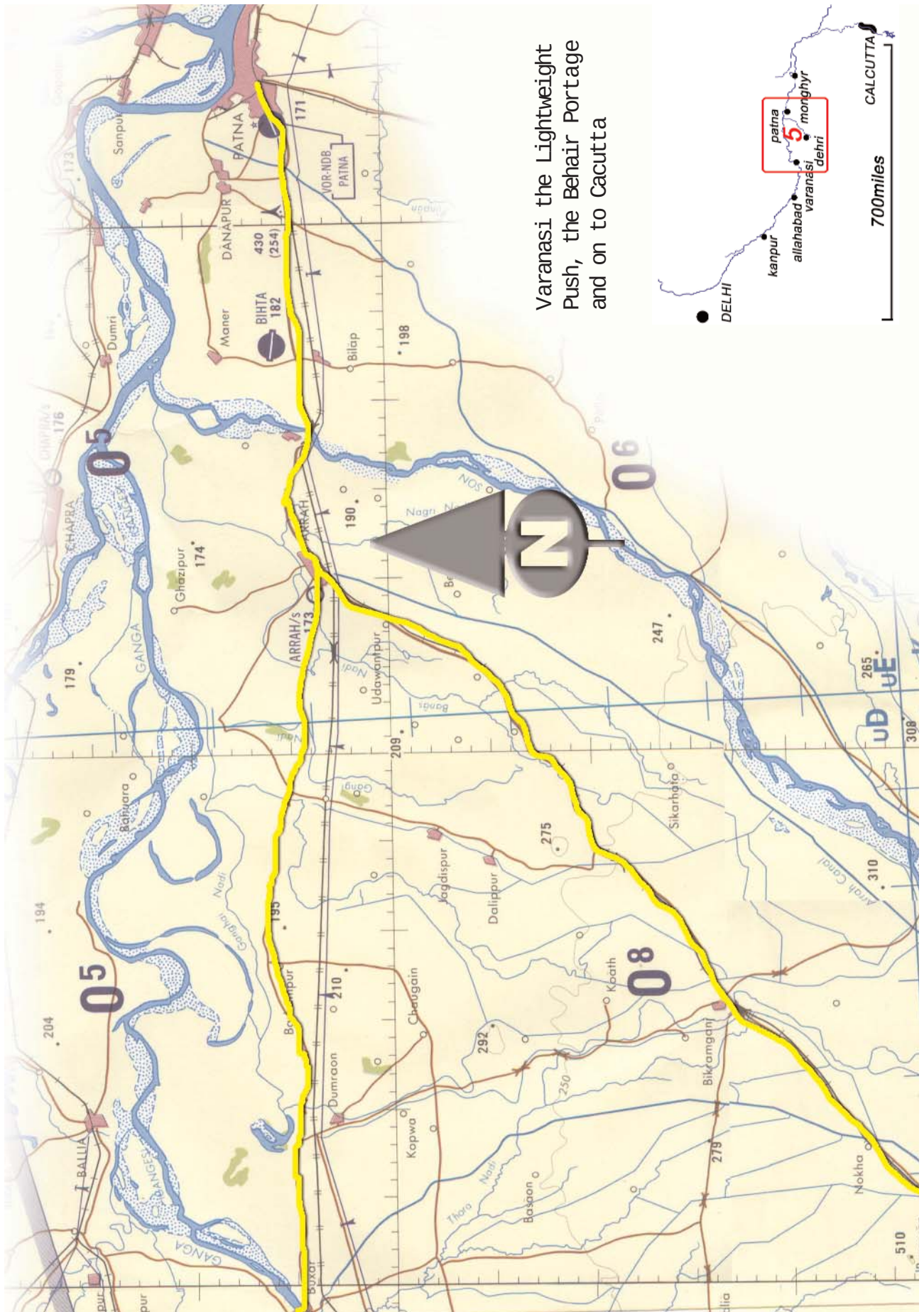
## LW CAMP 1 - CALCUTTA BY BUS



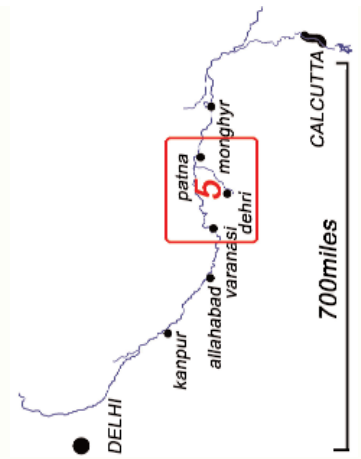
| CAMP NO. | NAME                                               | GRID REFERENCE         | COMMENT          | KM | NO. NIGHT | ACTIVITY                                    | TRUCK TIME | DATE 1998 |
|----------|----------------------------------------------------|------------------------|------------------|----|-----------|---------------------------------------------|------------|-----------|
| 35       | LW CAMP 2                                          | N25.24.30<br>E83.32.45 | SITE OF ATTACK   |    | 1         | CANOEING                                    | 0          | 13/2      |
| 36       | RETREAT TO VILLAGE                                 |                        |                  |    | 1         |                                             |            |           |
| 37       | STAY IN GUEST HOUSE                                |                        |                  |    | 2         |                                             |            |           |
| 38       | GAZIPUR                                            | N26.35.05<br>E83.36.05 | 2 MAN 2 DAY TRIP | 95 | 4         | 4 OF TEAM RECOVERING FROM ILLNESS OR INJURY | 0          | 11/2      |
| 39       | TOP OF HUGLI VIA CALCUTTA AS STATE OF BIHAR UNSAFE |                        |                  |    | 4         |                                             | 4          | 15/2      |



10 0 10 20 30 miles



Varanasi the Lightweight  
Push, the Behair Portage  
and on to Cacutta

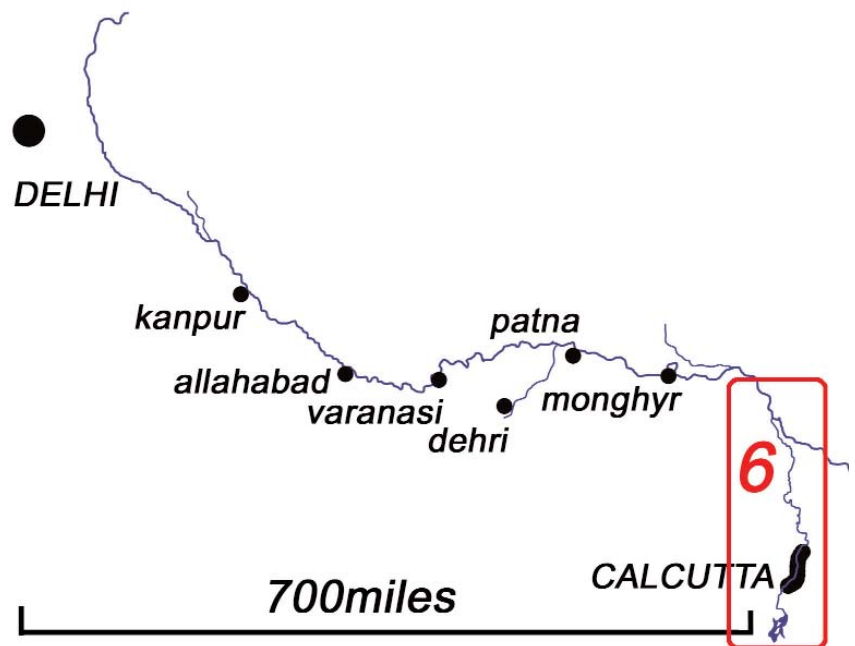


Defense Mapping Agency Center, St Louis  
Missouri TPC Series



# Section Six

Calcutta, Nadwadip, Kalna  
and Howrah Bridge via the  
Hugli



# The Journey to Farakha Field Report - The Last Truck Journey Back upstream to the Start of the Final Section the Hugli

## **An overnight truck journey with a new team member to the start of the Hugli.**

With the team safe in Calcutta crammed into the Paul family apartment opposite Howrah Jute Mills on the Grand Trunk Road there was time to re-assess and make plans for the team to finish its journey. The crowded air of Howrah did not seem to bother the team any more. Three months in India on the river and on the road seemed to have solidified the team's approach to the joyful colours, sounds and

sensations of India. For me as the leader and co-ordinator of the team the preparation for this section of the river taught me more about organising in India than during any other part of the project. Watching my Uncle negotiate and delegate with the turn of a head made me smile all the way to the inside, something that I had not done since the attack. One of my most vivid memories will always be watching my Uncle and my Cousin negotiate with the truck drivers who had driven us from Varanasi to Calcutta. As the red sun set over the thick waters of the Hugli we stood in the grounds of the Ferrous Oxide Paint Factory, as camping and expedition equipment was being ferried into a

storage room, hands moved and expressions were exchanged as the negotiations continued. My Uncle honourably dispatched the driver of the truck letting him know that he was lucky that he was not being asked for a refund. Despite working hard to negotiate a good price we obviously still had much to learn. I consoled myself in the knowledge that the Paul family had been in the transport and crane businesses for two generations and I was still on the first rung of my apprenticeship.

The home cooking and jovial attentions of my cousins seemed to raise the team's spirits by the hour. Games of table tennis on the living room table with mysterious spins being placed on the ball by the wall hung fan. Chippy was still suffering from his original injuries and the strain of the portage through Bihar. New X-rays were ordered to back up those taken during the Police escorted hospital visit in Gazipur. The results came back clear – there was no break in the arm nor was there any sign of serious long lasting damage to the head. However the tissue damage to Chippy's forearm was significant and very painful. Despite Chippy's drive and desire to complete the river journey there was no way that he was fit enough. We needed to find a replacement to make up the numbers to ensure that as many of the original team as possible were able to finish and complete our mission.

Having met a group of Sea Kyakers from Calcutta during the Varanasi Canoe Rally we re-established the contact. In a matter of days a replacement was found – Dipankar Ghosh a quiet and unassuming researcher agreed to make the time to join us. Cleaning, repairing, re-stocking and planning had to be done, however with the back up of my Uncle, the Paul family and Hari Babu (my Uncle's houseman) and the renewed enthusiasm of a rested team we were ready to get back to the river and complete the final leg of the journey.

Having a base and storage meant that we were able to leave some equipment behind with my Uncle. We returned to Foreshore Road on the bank of the Hugli in Howrah – to the paint manufacturing plant where the equipment and boats had been stored. In the darkness of an early evening we loaded the revised set of equipment. Our new recruit Dipankar arrived with a smile. With the truck loaded and Mobile Adventure banner tied onto the back of the truck we set off to complete our task. It was sad having to leave Chippy to rest his damaged arm.

We turned left at the level crossing and rattled into the distance leaving the light of Howrah behind.

It was a starlit night, somehow the tensions of the past few weeks floated away into the night sky. Few uncertainties lay ahead of us compared to the early dusty morning when we landed at Delhi airport. One of the most enjoyable aspects of this part of the journey was observing the noticeable change that had come over Mitesh, who up until this point had been under a great deal of stress since our arrival in India. As the only Hindi speaker within the team he had been the focus of much of the negotiation. His smile and strength had brought both him and the team through some of the most intense moments; this had however taken its toll. With Dipankar taking the front seat in the negotiations in Bengali the change was evident, Mitesh began to smile once again from his more back seat position in the team.

Our arrival in Farakka attracted the usual crowd, inquisitive looks and questions fielded by smiles with the complicated questions being fielded by Dipankar. In the hour before midday we unloaded the boats and the equip-

ment once more. The warmth of the approaching summer was stifling. We were constantly amazed at the pace of the language of the regional Bengali, it seemed to sing compared to the relative sedateness of Hindi, the main language spoken in India.

# The Hugli Trip Field Report

**Six days of furious paddling, summer had arrived bringing with it the need for early starts and an enforced lunch break.**

**An account written in India by Nuala Mulholland.**

In front of us the canal that led from the Ganges to the Hugli poured through the southern barrage. We had journeyed overnight to reach this point by early morning but our estimate of the journey time was out and we had not arrived till late afternoon and were by now raring to go.

The Hugli river is generally considered to be the true Ganges and leads to the sea via Calcutta. We had chosen to take this route to finish our journey as the Ganges river passes through Bangladesh and our quest was to paddle the Indian Ganges to the best of our abilities. Six of us stepped from the lorry, weary from the journey and yet bursting with energy in anticipation of the adventures that the last section would provide. However, we were not the original six. Chip had suffered some injuries that rendered him unable to paddle for some time. As his recovery time was not certain and definitely not in the near future, we had all decided to ask a local paddler to act as our guide. As Hindi was not spoken widely in West Bengal this proved to be a prudent decision. The first afternoon finished after a couple of hours paddling by setting up camp on the first grass bank we had found in a long time. At first we were delighted at our fortune but as the dusk crept in our delight turned to despair as all around us mosquitoes prepared to dine and moths attacked all available light.

There was a definite air of efficiency buzzing through the camp that night to such an extent that a pre-dawn start was agreed on. Hence, with the stars still carefully watching over the world we awoke at 5am the next morning. Dawn

spread its wings gradually and greeted us soon after our departure, this time we were not met by thick mist or heavy dew but by sunshine and deep blue skies. The last few days on the river were to be glorious.

The original plan had been to attempt the last section in 10.5 days and finish deep into the tidal range by a college that was to receive our donated equipment – the Sea Explorers Institute at Calcutta. To do this we needed to travel 40 km each day. The first day we covered 10 so thereafter our work was cut out.

Before long a rhythm was gained and the boats began to glide. We had taken less luggage for this section, having left all our extra baggage in a compound with the Paul family in Calcutta, so with ease we seemed to eat mileage. Our bodies, tuned from the previous months, enjoyed the freedom of movement and effort that the lighter boats provided. Above us the sun drifted across the sky burning our backs with its rays and by 11.30 a.m. we had to stop for shade. We had travelled 35 km. already so felt deserving of a couple of hours break. That night we camped and ate beside wild peas having completed 55 km. Gradually we relaxed in the deep grass to the sound of night birds singing from the trees and the soft light of the moon bathing our tents.

The next couple of days remained sunny and provided a pleasurable stretching of body sinews to an extent that we covered around 60 km each day.

Day four. We changed partners and boat positions from front to back or vice versa. This proved unfortunate for Eric as the restricted seating in the front meant that the injury suffered to his back by a fall in Varanasi was made worse. Nuala had also suffered at the hands of Indian wild humour and somehow sustained bites, about 100 in all, all around her bum. Not good for sitting and paddling!

Nabadwip is famous for being the head office of the Krishna organisation and was now our next port of call. We hoped to rest for the night in its temple so were keen to make the town before night. Still it was getting dark when we first saw the temple steeple rising out of the distant country side. It seemed so close we decide to push into the night and find refuge in the temple grounds. As rivers often do, and when you least expect them to, this one decide to meander everywhere to an extent that we never seemed to get any closer. At last, around a long 90 degree bend and well into the night we were confronted by the temple lit up by lights of multi-colours and shrouded by a low river mist. A welcome sight. We had about 1 km. to go across a black river that reflected the sky above as clear as any river. The distance was covered quickly as the boats seemed to float above the water, however, we soon found that the temple was well off the river bank so as it was late we decided to camp on the opposite bank.

The next day we visited the temple's immaculate grounds and breakfasted in

the café, before leaving for Kalna. We reached Kalna before dusk and decided to camp opposite the village on the left bank. We were now on the verge of the tidal range about 130 km. from our intended finish at the Sea Explorers Institute. We had already been advised that reaching the open sea was too dangerous due to the tidal anomalies, tidal bores and ships that are apparent from Calcutta down and were now ready to make a decision about the intended finishing arrangements. The maps were studied, distances calculated and tide tables researched. It was decided to make a hit for it in one day.

We awoke at 1.30 a.m. and headed for Calcutta the intention being to eat and drink on the move and hence use the tides to their fullest. We paddled for hours under the moonlight until the clouds came and darkness fell. Eventually the sun rose above the horizon and we made tea whilst cementing our memories of that multicoloured sky by clicking away with all our cameras.

Mid-day was soon upon us and we had made 70-80 km. The end was within our reach. We rested for a couple of hours whilst the tide changed. Our estimations had allowed for a fast tide, about 8 knots. It didn't happen. We were exhausted. So by 6.30 p.m. and with about 100 km. covered we stopped with only 30 km. to go. The last stretch would have to wait for another day.

# The Final Stage Barrakpur to the Sea Explorers Institute Field Report

**A team of four make the final journey from Barrackpur to the Bridge at the Sea Explorers Institute passing under the famous Howrah bridge.**

An exhausted team had left the river in Barrackpur following a marathon paddle to try and get off the water before the perils of being covered with coloured dyes and paints during the Festival of Holi, which marks the start of a long hot Indian summer.

The aim of the final push was to get as many of the team under the Hugli bridge together. We were hoping that Chippy would be well enough to paddle with us as well as allowing Mike some time to rest

After one night in Calcutta it was only possible for Nuala and Mitesh and Suresh and Dipankar Ghosh (our locally recruited relief paddler) to make the journey. Chippy's arm was not in a good state, Mike was exhausted and had an infection and the usually very fit Eric was flat out with a back injury that he had suffered during a fall at the water rally.

To catch the tide the final section of river had to be travelled during the night. Four of us returned to the Sea Explorers Institute at midnight expecting to see just one truck waiting for us to take the team and the boats up river. Instead we found close on 100 trucks waiting to pick up their loads. As a result we had to spend a good hour reading all the number plates of each truck.

It seemed like the last truck in the queue was ours. By 2 a.m. we were on our final truck journey, playing blackjack by head torch. Although the four of us

felt glad to be able to finish the last section we were sad that it was not possible to have all of the team on the water during the final push.

The stars opened up as the night proceeded as we tried to get some rest before our 4a.m. start. By 3.30 a.m. we were nervously winding our way through the back roads of Barakpore with their perilously low unprotected cables. Mitesh at this point stood up armed with a wood stick to try and fend off any unwanted electricity lines.

The river looked foreboding in a peaceful way. One man was performing holy dips as we tried to put the boats on the water one last time.

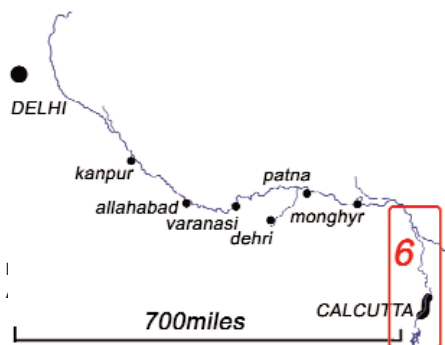
As the boats slid into the water a thin mist appeared on the city bound section of the Hoogli. The sights and sounds were in complete contrast to the images that we had in our heads of the Upper Ganga and its energetic flow to the peaceful Mother Ganges who supplies life to much of India's villages and farms. The tide turned and we were off flowing towards the sea and the Howrah Bridge with the mighty river Ganga behind us.

As the night flowed into early morning we passed more and more Ghats, the sounds of early morning Muslim Prayer mixed with the chimes of Hindu reverence. As dawn broke we rafted for a few minutes to eat some salad sandwiches, the digestive biscuits that we all cherished seemed like such a distant luxury, we wished for more.

The starlit night above seemed to have a friend on the horizon as we passed the lights of the city. We were silent. Each of us seemed to be gathering our thoughts. We stopped to watch the dawn, and to look forward to travelling under Howrah Bridge in the sunlight. It was not to be. Shortly after dawn a thick sea mist rolled in shrouding the city and cutting down our visibility to 40 metres. From this point we paddled nervously with the knowledge that we were now in commercial shipping territory.

Glimpses of the shore allowed Dipankar to let us know exactly where we were from his local knowledge. At 6.30 a.m. we could hear the traffic on the bridge somewhere in the distance. With no visual reference we proceeded feeling that we were about to be mowed down by the traffic.

Howrah Bridge appeared as a favour just as we approached journey's end.



# SECTION 6

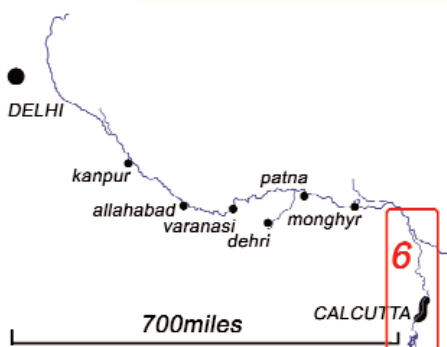
## CALCUTTA - HOWRAH VIA HUGLI

| CAMP NO. | NAME                | GRID REFERENCE           | COMMENT       | KM   | NO. NIGHT | ACTIVITY                                                               | TRUCK TIME | DATE 1998 |
|----------|---------------------|--------------------------|---------------|------|-----------|------------------------------------------------------------------------|------------|-----------|
| 40       | CAMP 26             | N24.41.13<br>E87.56.29   |               | 10   | 1         | CANOEING                                                               | 0          | 23/2      |
| 41       | CAMP 27             | N24.23.99<br>E88.10.39   |               | 60   | 1         | CANOEING                                                               | 0          | 24/2      |
| 42       | CAMP 28             | N24.03.23<br>E88.13.39   |               | 62   | 1         | CANOEING                                                               | 0          | 25/2      |
| 43       | CAMP 29             | N23.42.07<br>E88.10.58   |               | 84   | 1         | HARD CANOEING                                                          | 0          | 26/2      |
| 44       | CAMP 30             | N23.24.91<br>E88.23.16   | NADWADIP      | 85   | 1         | VISITED CENTRE FOR KRISHNA CONSCIOUSNESS                               | 0          | 27/2      |
| 45       | CAMP 31             | N23.13.24<br>E88.23.01   | KALNA         | 40   | 1         |                                                                        | 0          | 28/2      |
| 46       | FINISH AT BARAKPOUR | N22.47.00<br>E88.22.00   | RASHMARI GHAT | 105  | 1         | LEFT AT 1.30AM TO USE TIDES<br>FINISHED AT 8.30AM                      | 0          | 1/3       |
| 47       | HOWRAH              | NN22.36.95<br>EE88.22.25 | STARTED 4AM   | 30   | 0         | UNDER HOWRAH BRIDGE AT 7AM<br>FOR FINISH AT SEA EXPLORERS<br>INSTITUTE | 0          | 5/3       |
| TOTALS   |                     |                          |               | 1443 | 78        |                                                                        |            | 7         |

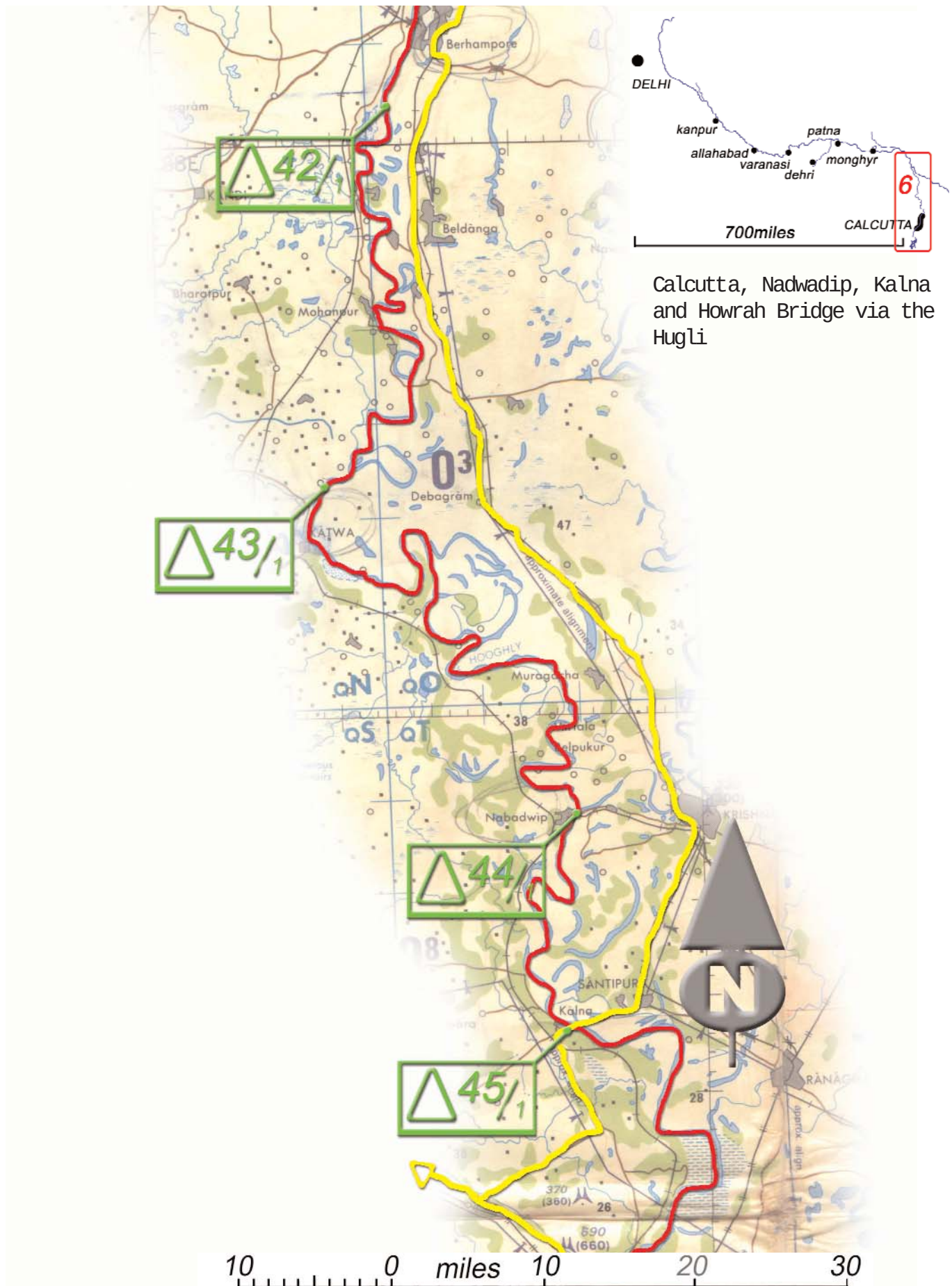
10 0 miles 10 20 30

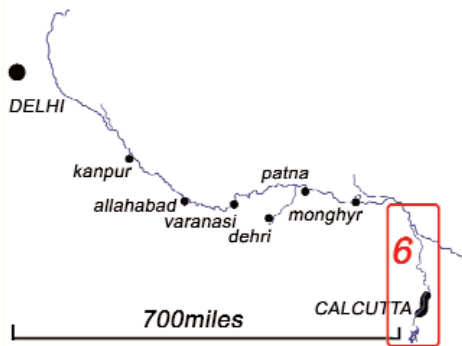


Calcutta, Nadwadi, Kalna and Howrah Bridge via the Hugli

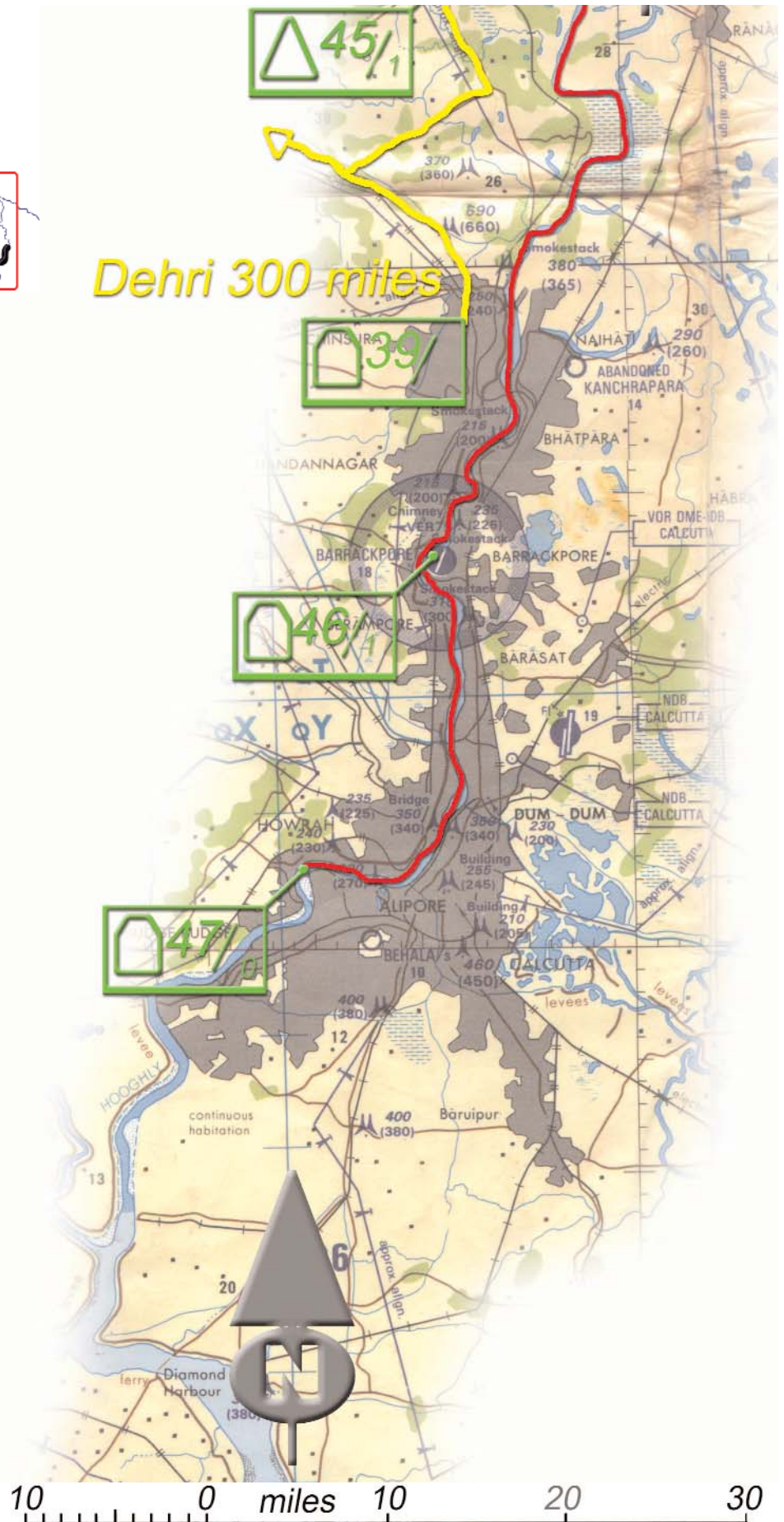


Defense Mapping Agency Center, St Louis  
Missouri TPC Series





Calcutta, Nadwadip, Kalna and Howrah Bridge via the Hugli



Defense Mapping Agency Center, St Louis  
Missouri TPC Series

# Science and Field Research

## Environmental equipment and team assessments

**Fieldwork is the core of any scientific expedition. However to achieve its goals a scientific project in the field requires all other more basic aspects of the project to be satisfied. This is especially true if one is to involve an integrated team in a meaningful way because all areas of activity become of joint concern, with no activity sacrosanct through professional demarcation.**

During the fieldwork phase of this project the team undertook four main areas of science and research;

1. A water quality assessment of the River Ganges - which looked at the way in which the chemical composition of the Ganges changed during its course from the source at Diapreg to the coast at Calcutta.
2. An assessment of the Adventure Designs equipment used on the Ganges expedition by the disabled members of the team.
3. A self assessment written by the disabled members of the expedition that outlines the major barriers faced during daily living on a river based expedition in Asia. This section may be of special interest to readers with a spinal cord injury.
4. A psychological overview of the inter-relationship of the team members in challenging circumstances.

# Water Quality Testing

Recording changes in water composition during the team's journey

**In dedicating the expedition to WaterAid, fundraising for that global charity on our return, the team planned to gather water quality data on the River Ganges which would be of interest to environmentalists and water providers.**

## Mother Ganges

The following section outlines the water quality assessment project that the team undertook during its time in India. This was inspired by the Mother Ganges and the people who live along its banks. The team recognises the significance of the Ganga to the peoples of India. The information gathered on the chemical composition of the Ganga serves no other purpose than to inform others of the make-up of the water. We could never measure the spiritual value of the waters of the mighty river which the team were fortunate and proud to travel.

## Introduction

The equipment used during this element of the expedition was donated by Camlab of Nuffield Road, Cambridge. The test kit comprising a selection of DpD comparison disks and chemicals for dissolved oxygen testing and an electronic thermometer and Ph meter and the relevant test tubes and measuring vessels was shipped to India by Dangerous Goods International. The expedition team would like to thank both Camlab and Dangerous Goods International for their kind support.

A special “thank you” to Jeremy Wakeman of United States Filters who organised and supported the final preparations for this element of the fieldwork.

## Intended Scope of the Study

To gather data on the water quality of the Ganga at regular intervals throughout the team’s journey from Diapreg to Calcutta, using a portable colour comparison test kit. Data would be gathered on the following parameters:

Ph

Air Temperature

Phosphate

Nitrate

Dissolved Oxygen

Chemical Oxygen Demand

Biological Oxygen Demand

Total and Free Chlorine

Visibility

## Difficulties

Due to supply problems, for Nitrate Colour disks in Europe, and a packing mix up the study had to be undertaken without testing for Biological Oxygen Demand and Nitrate Content.

## Methodology

### Field procedure

Instructions supplied with the Camlab Equipment were laminated.

The tests were overseen by one science officer to maintain constancy throughout the study.

All findings were copied out at the end of each day to reduce any inaccuracies which may have arisen through difficulties in field note-taking and transcription.

Whenever possible the samples and testing were undertaken in the morning to ensure that samples were not spoiled by the heat of the sun

However during the Hugli section due to a change in daily structure it was not possible to undertake the trials in the morning; as a result all these Hugli tests were undertaken at lunch time. Once again the tests

were undertaken by a single science officer to ensure continuity of results.

All data was checked and typed up before leaving India.

## Sample Collection

### Collecting an Average Sample

Equal quantities of water was collected from River Right, River Left and the Centre of the River. All three samples were placed into one container from which the tested samples were taken.

### Cleaning Equipment and Avoiding Contamination

All containers were thoroughly rinsed with the average sample and the water disgarded into a collection bucket. Similarly the main collection bucket for the average sample was rinsed thoroughly with river water from that location.

## Sample Testing

### DpD Sample Testing Procedure

A sample is treated with the appropriate reagent and the difference in colour density is compared against an untreated control specimen or sample. The difference is assessed by the use of a graduated disk: when the two specimens match in colour the chemical content is read off the scale.

### Ph Measurement

An electronic Ph meter was used, at the start of any test the meter was calibrated using the Ph 6.9 calibration fluid. The meter was held in the river until the reading on the display panel settled.

### Electronic Thermometer

It had not been possible to calibrate the thermometer in the field. The meter was held either in the open in sheltered air or in the river to gain the ambient air temperature and the water temperature.

## Field Working Area

### Health and Safety

#### Initial Briefing of the Team

The team were given a safety talk by the science officer during the preparations in Delhi. This was repeated during the first section of the river journey.

#### Safety Equipment

Safety goggles were worn at all times during the handling of any chemicals. No food was handled or consumed during the testing.

#### Working Area

The working area was prescribed by a plastic ground sheet that also served to reduce the level of any contamination to the samples.

#### Disposal of Reagents

This proved to be a problem, tested samples were diluted and disposed

of away from the water course and human activity.

## Equipment

Pocket Ph Meter

Ph 6.9 Calibration Fluid

Electronic Thermometer

4 Test tubes graduated at 5ml

### **DPD Colour Comparison Test Kit**

Disk Holder

Disks

Total Chlorine

Free Chlorine

Orthophosphate

Nitrate

### **DPD Reagent Pillows**

Phosphate Standard Solution (to check analysis)

Nitrate Standard Solution to check analysis

Dissolved Oxygen testing pillows

Ammonium Salicylate reagent pillows and Ammonium Molybdate reagent pillows

Sodium thiosulphate solution

Dissolved O<sub>2</sub> testing bottle

8 sample testing bottles

Long path viewing adapter and relevant tubes

3 .75 ml syringe

0.75 ml syringe

## The Research Environment - Spatial Framework

A total of 28 sets of results were gathered during the team's 78 days on the river. Each location was plotted using GPS where the sample was taken near a known point the relative location was taken to complement the GPS data.

Samples were taken on the following sections of river:

### **Ganga**

Dehradun to Rishikesh

2

|                                |   |
|--------------------------------|---|
| Rishikesh to Haridwar          | 3 |
| Haridwar to Anupshar           | 5 |
| Anupshar to Fatehgar           | 0 |
| Fatehgar to Kanpur             | 5 |
| Kanpur Tap Water               | 1 |
| Kanpur to Varansasi            | 4 |
| Varanasi to Boarder with Bihar | 2 |

#### **Hugli**

Farakka Barrage to Calcutta 5

## **Summary of Results**

#### **Air Temperature**

Maximum temperature of 34.1 degrees at the time of testing at just below Farakah on the Hugli during the heat of the mid day sun.

Minimum Temperature of 6.1 degrees at the time of testing at Rishikesh in the early morning.

#### **Water Temperature**

Maximum temperature of 26.1 on the 27.2.99 in Calcutta

Minimum temperature of 12.9 in Rishikesh

#### **pH**

Varied only by 0.8

#### **Nitrate**

Stayed constant at less than 1.0 mg /L throughout the length of river tested.

#### **Chlorine**

Total chlorine varied between 0.1 and 0.5 mg/L with the highest concentrations being experienced in the area above Fategah. The chlorine content returned to 0.1mg/L during the lower section of the river from Varanasi down.

The results for free chlorine followed the same trend as that for total chlorine.

#### **Phosphate**

The highest concentration of Phosphate as PO<sub>4</sub> was experienced, in Tigri, 4 days paddle above Fategah. The concentration fell during the final section of the river from Varanasi onwards falling to 0.2mg/L in Calcutta.

The results for Phosphate followed the same trend varying between 0.1

and 0.4 mg/L

#### **Channel Width**

The channel width at the test sites varied between 30m in the upper section and 400m just below Varanasi.

## **Equipment Evaluation - Field Improvisation**

A useful addition to the field equipment would be a five ml dispensing syringe for dispensing specimens, this would mean that there would be less chance of sand contaminating the sample.

Future river or boat based expeditions need to consider packing the equipment into a watertight container such as a Pelican Case. Whilst the adapted tackle box withstood the rigours of the journey, the equipment needed decontamination as a result of egress following a partial capsize during the initial stages of the lower river.

## **Conclusion**

This element of the project can be said to be of only limited success in gaining meaningful data, however undertaking the study illustrated the logistical conflicts that can occur between the scientific and cultural aspects of a project as well as the logistical efforts required to support an integrated team.

## **Background to Environmental Campaigning on the Ganges**

### **Environmental Groups**

The following information was gathered by the Expedition's science officer following the completion of the main phase of the expedition. It outlines some of the work currently being done by Non Governmental and Governmental Organisations to improve and maintain the water quality on the Mother Ganges.

# What is Ecofriends

Registered in September 1993 as a Non Governmental Organisation by Rakesh Jaiswal the governing council included Mr A.B. Lal and Mr D.K. Mitta. Initial work consisted of: sewing the seeds of environmental awareness in schools in the Kanpur area, growing the awareness of the physical plight of the Ganga, and the decreasing health of the river due to the pressures of the population and industry on the river's ecosystem.

Initially a letter to Justice Malviya generated public interest that led to litigation by the Allahabad High Court. This was widened to include all the towns of the Uttar Pradesh along the Ganga. In June 1997 action by Ecofriends removed a large number of bodies and animal carcasses from the river. Rallies were organised that included: Police, Army, Girls Battalions, and National Cadet Corps alongside public and religious groups. Ongoing campaigning has increased public interest in the Ganga. Some of the latest projects include the barrage at Farakah at the top of the Hugli and Terri Hills in Uttar Pradesh.

Thirty local NGOs networked to act as an effective lobbying force placing emphasis on towns committed to the Ganges Action Plan to support the 'Polybag Campaign' which presented the "reduce, re-use, recycle" message to the public at the holy Mella in March '99.

Additionally the NGOs campaigned for the Ganga to be re-routed back through Kanpur and restored to cleanliness. Calls for the formation of an environmental policy for the Ganges and the provision of facilities for handling biochemical and hazardous waste in the Kanpur area, long-term, also seek the establishment of a Ganges trust to look after the interests of the river along its length. Currently local remedies detract from any overall improvement by merely moving the problem elsewhere.

## Successes Failures and Achievements

The June '97 Removal of bodies from the Ganges raised awareness. The PIL widened by Allahabad High Court to cover effluent disposal and defecation and washing clothes in Uttar Pradesh. Notice was served on Central and State Governments by Justice Malviya

Court orders from the Allahabad High Court resulted in the closing of over 150 tanneries in the Kanpur area alone, in addition to a Sari Printing Unit and Carpet Dye works in Varanasi in Mizapur until the installation of effective effluent treatment works. Ashrams and Ghats in Rishikesh and Haridwar were

instructed to be kept clean and sewage and waste disposal facilities to be provided to minimise the input of faecal matter.

The government was instructed to create a 100% tax exempt Ganga Fund to provide an avenue of relief for the river.

Pressure on the Ganges as listed by Ecofriends include:

Body disposal by ineffective cremation and dumping.

Discharge of industrial and domestic effluent.

Water abstraction at Haridwar and Rishikesh for irrigation for the Cowbelt, which is replaced by sewage.

The most polluted section in Kanpur where the diversion of the main flow of the Ganga around the North of the city has resulted in the channel through the centre of the metropolis becoming little more than a stinking ditch (Ecofriends report).

## **The Ganges Action Plan**

The Ganga Action Plan initiated by Rajiv Gandhi in 1986 has managed to achieve little of lasting benefit to date. Focussing on the seven towns of:

Allahabad

Rishikesh

Haridwar

Farukabad

Mizapur

Kanpur

Varanasi

The initial phase of the Ganga Action Plan included the provision of public toilets, electrical cremation of bodies and water and effluent treatment plants. It was claimed by the government to be 70 % efficient. However, pumping station and treatment works are affected by the interruption of electricity supply, hampering their efficient operation. The discharge of untreated material leads to cross contamination of the drinking water supply due to the age and condition of the water supply pipes in the city of Allahabad.

Lack of funds for the active operation and maintenance of the pumping station and drinking water treatment plant installed under phase 1 of GAP reckoned to be 6 per cent of the capital cost disappeared between origin and destination,

allegedly, so whilst the concept was sound the application was not. Relaxation of standards for bathing water from the Central Pollution Control Board's original requirements to the GAP, permitting a lower water quality, has increased the level of Faecal Chloroform and Total Chloroform as the plants installed under GAP do not have adequate microbile performance

GAP has been halted by court order until its past performance has been evaluated and cleared by a national technical committee for the commencement of stage 2 . The Government went to the Supreme Court to get a stay of execution on this and to challenge the formation of a river police.

There are so many elements that have made the Ganga one of the world's most polluted rivers: the monsoons, industry, un-cremated or semi-cremated bodies deposited in the river, inadequate sewage works, erratic power supply for pumping or treatment and more. But like many tropical rivers it can clean itself very quickly. Past reports have suggested almost magical qualities. At one time reports and tests showed that the Cholera microbe survived less than three hours in Ganga water whereas in distilled water the bug survived eight times as long.

# Equipment Assessment

An assessment of the specialist equipment used by the disabled members of the team

**Continuing the people - centred design ethos of the Design for Life Centre, the findings of the Ganges '98 expedition has informed the design process of two pieces of innovative equipment, opening up new opportunities for the further inclusion of disabled people into mainstream Adventure and Scientific expeditions**

## Introduction

The following section outlines the experiences of the disabled and non-disabled members with regard to the specialist equipment used during the expedition to support the requirements of the disabled members of the team. The specialist equipment did not replace the standard equipment used by the team as a whole, it added to the canoeing and expedition equipment to support the daily living requirements of the disabled members of the team.

The specialist equipment was designed and provided by the Design for Life Centre's Adventure Designs team at Brunel University's Department of Design. The design team worked closely with members of the expedition team to ensure that the anticipated needs were assessed and met.

## Summary

The data was gathered during the Ganges '98 Expedition and is taken from the experiences of one person over a four-month period.

## Study Design

The key issue considered when devising the study was to ensure that as far as possible the study did not place the team under any excessive pressure. During previous investigations by the Adventure Designs team in an expedition environment it became obvious that placing the disabled team members at the centre of a study and conducting interviews placed a great strain on the information gatherer and highlighted differences in the group. The extended duration of the Ganges project also presented a need to ensure that the team members maintained their own space. During the preparation the expedition team anticipated that there would be very little opportunity to gain any personal time.

Discussions between DfLAD staff and Mike King, the paraplegic member of the team, in the lead-up to the fieldwork phase suggested that for Mike to be able to operate successfully he needed to maintain a high level of control over his involvement in the project. Following further discussions it was decided that Mike would make his own independent assessment of the equipment and the barriers that he faced, as the mobility disabled member of the team. This resulted in a mutually agreed working practice for the collection of data.

Data was collected in the form of a personal diary that was maintained by Mike during the journey, the data was then presented by Mike to the Adventure Designs team. Mike's written report following the presentation has been used as the basis of this section of the report.

## Background to Spinal Cord injury

A spinal cord injury usually follows a traumatic injury resulting in a loss of continuity of the spinal cord. The spinal cord is part of the central nervous system, a loss of continuity results in a loss in muscle function, loss of muscle tone, and skin condition below the level of injury. The resultant loss of function can be placed into the following categories:

Incomplete – reduction in function without total loss of lower limb function often meaning that the individual is able to walk with the aid of crutches.

Paraplegic – loss of function in both lower limbs

Quadraplegic – loss of function in all four limbs

When considering the specific needs of a person with a spinal cord injury in the non-urban environment past work carried out by the Adventure Designs team during field trails in Israel showed that the following functional aspects need to be considered;

Toileting and Personal Hygiene

Mobility

Posture

Injury Prevention below level of existing injury

## **Equipment for Trial**

Specialist outdoor equipment used during the fieldwork devised by- Adventure Designs:

Aquabac Postural Support with Base board – Adventure Designs

Field toilet – Adventure Designs

Standard rehabilitation equipment used during the fieldwork phase:

Jay protector – Jay Medical

Folding Wheelchair – Quickie

## **Evaluation**

### **Postural Support Base Board**

#### **Introduction**

The initial base board was designed by the Adventure Designs team. The initial glass fibre-coated foam-filled prototype was made with the support of DfLAD and Tony Cox of Random Technologies – London.

#### **Description**

A carbon fibre base for the Aquabac that provides a rigid foundation for the AQUABAC. The main body of the AQUABAC is then tied on to the base board. The base is secured onto the open canoe seat by two sets of webbing roof rack straps.

The base board was used solely during the open canoe sections of the journey and once secured was only rarely removed from the boat.

#### **Feedback**

Fixing needs to be made very easy and quick.

The baseboard at present is thick so it raises the centre of gravity making the boat unstable. If the seat is lowered, the seat now becomes only usable by disabled people.

Need to lower the centre of gravity and bring the user down to existing seat height.

Either an adjustable seat, which will be expensive or a new design for the base board whereby the board is “u” shaped allowing it come up from underneath the seat and offer support without raising the centre of gravity. (Original plans had been to replace the existing seat with the base board, this was not possible prior to the expedition due to financial constraints. However, the mark two base board has a lower profile to get around this).

The base board needs to fit in the rear of all open boats to ensure that a disabled canoeist is able to participate fully in the boat and achieve their full potential, contributing fully to the paddle.

## **AQUABAC - Postural Support System**

### **Introduction**

The AQUABAC postural support system was initially developed by the Adventure Designs team during a project funded by the National Lottery. The development process took a partnership approach involving people with spinal cord injury throughout the development process. The project also involved two partner organisations Backup and Aspire both of which support the needs of people with spinal cord injuries. Initial trials and development in the UK lead to a field trial and design project based in Israel where much of the foundation design data was gathered.

### **Description**

A flat pack fabric covered seat with a modular captive padding system to provide adjustable support. The design can be used in two main ways to provide differing levels of support to the user. Height adjustment is provided by using either long or short aluminium back stiffeners. When using the AQUABAC in canoeing – in the low position the back is folded down to provide additional support and ensure that there is no rubbing on the paddler’s lower-back during use. The system also incorporates a skin protection system consisting of a captured gel insert that provides protection for the user’s sacrum and iliac tuberosities, this is then covered by a foam inlay to provide moderate protection all the way up the back.

When using the system in rafting – with the white water harness – the system is used in the high position only, to ensure that the user’s mid and lower back

is not placed under any undue stress as a result of extreme movements of the upper body which may be caused by the movement of the raft.

## Feedback

Postural support works well in assisting a spinally injured person to “open canoe”.

### **Mike King's comments:**

#### **Height Adjustment**

High back gives best support in rougher sections.

Low back allows less restrictive movement suitable for calmer sections

#### **Clothing**

When wearing a buoyancy aid the user's upper back is pushed out leaving a gap around the lumbar regions of the back.

A possible solution would be to insert a foam wedge in the lumbar regions of the seat, which could rectify the problem.

#### **Lining and Padding**

Lining padding proved OK for my level of injury, but extra might be needed for less mobile users.

Side pads can pop out during side transfer or violent side to side movement. A made-for-purpose set might be the answer or some sort of pocket system of flap to "tuck in" between the inner and outer side leaves.

The purple gel pad is useful for spinal support for sleeping. As it is removable it could be bigger.

#### **Organisation in open canoe**

Feet – these have a tendency to get trapped under the thwarts.

When the gap between the floor and the thwarts opens up your feet can slip into the gap and once the gap closes your feet can become stuck. This can assist in keeping you in the raft but can also stop you getting out.

A possible solution would be a strap with a quick release.

#### **Attachment to Base board**

The attachment of the postural support onto the base board needs to be re-assessed. At present it is difficult for an able-bodied person to attach the board individually; additional problems are presented to the disabled.

Karabiners with adjustable tensioning straps located within reach of the person sitting on the seat would seem to be the way forward.

### **Rafting Harness**

Harness – existing shoulder straps are too narrow they should be same diameter as the belt.

Also the release mechanism for the shoulder straps is too big therefore there is slippage under strain.

The buoyancy aid restricts the use of large shoulder straps therefore maybe the straps should be an integral part of the harness.

Personally I am not convinced that the release mechanism on the belt will allow both shoulder straps to come free under pressure if the person becomes inverted- one is likely to get caught on the release mechanism.

So as a rafting harness it worked but I feel it needs a rethink.

The shoulder straps are too narrow and the strapping system too complex to fit and egress may be difficult in extreme conditions.

I feel that one option would be to attach the buoyancy jacket to the raft.

## **Field toilet**

### **Introduction**

The field toilet was an unfunded initiative taken on by Adventure Designs staff in support of the needs of the Ganges '98 Expedition. Due to budgetary constraints relatively little design development could be undertaken prior to departure.

### **Description**

The prototype used on the Ganges '98 Expedition used a re-enforced upturned plastic container to provide a platform for a padded removable standard toilet seat. The system was stored in a double thickness non-backed 5oz nylon bag to ensure that the toilet was inconspicuous during travel and to reduce the chance of cross contamination, when handled by the team. The field toilet was used solely by Mike King in an effort to reduce the chance of contamination and infection for Mike.

### **Field Modifications**

Due to the limited nature of the UK development process materials were acquired in the UK and during the team's final preparations in Delhi, to ensure that field design modifications were possible en route.

In the field we needed to provide additional stability to make transfers easier and to provide a more stable platform for self catheterisation and digital manipulation. This was achieved by improvising a retaining sys-

tem to locate all components of the system. In addition a ground anchor system was used to locate the system during use.

### **Layout**

In addition to the design of the field toilet, one of the most significant factors that affected the function of the system was the layout of the toilet in relation to the peripheral items in the system. These included:

- Washing bucket jug and detergent
- Size and location of pit
- Layout of the vanity screen

## **Feedback**

In general the mark one version produced in the UK worked well during the initial stages of the fieldwork phase. However a radical redesign was needed – options being a "director's chair", if it can fold up small enough, possibly using paddles to extend the footprint or a simpler modular system that can pack into a smaller space. Mike King favours a twin hoop system with a flat plastic seat that might fold in two.

Anchoring the structure to stop any tipping during use improved the function greatly.

## **Standard Rehabilitation Equipment**

### **The Jay Protector**

## **Description**

Hard-based 'Flowlite' gel cell located in a hard wearing fabric retaining system that is held onto the user by a webbing belt. The Jay provides a degree of protection to the users Ichial Tuberosities and buttocks.

## **Results**

The Jay Protector worked well during the fieldwork. One of the main problems encountered was maintaining the position of the equipment on the user, the solution is to have a rudimentary strapping system.

# **Quickie - Folding Wheelchair**

## **Description**

Aluminium frame folding wheelchair, with canvas seat and removable fleece covering contoured foam cushion. Removable back wheels and foot rests - designed for general use.

## **Usage**

Hotels, towns, cities and airports. Most of the time Mike used standard NHS crutches to get around (filled with foam to make them float).

## **Results**

The main structure of the chair and the wheel stood up to the rigours of the journey. The only real damage was the loss of the locking pins for the footrests which were lost during a portage section.

## **Future Design Development**

Complete the design of the AQUABAC postural support system incorporating experiences on the fieldwork phase of the expedition. One of the greatest design needs highlighted by the expedition is the requirement for a field toilet to ensure that independence and personal hygiene can be maintained in the field especially by mobility disabled users.

# Recommendations for Disabled Travellers

Advice views and experiences  
by Mike King

**Preparation, self-sufficiency and flexibility is the key to surviving and operating in the field.**

## **Stuff that needs to be sorted out before you leave**

Alternative medical supplies in the host country

Support services i.e. list the medical evacuation companies that operate within the host country with their contact numbers. It is also worthwhile giving them your insurance details and making sure that the insurance will cover you.

Location of international airports.

Specialist medical centres (i.e. servicing your own particular needs).

Buddy relationship i.e. somebody who would wipe your backside for you no question (rather than your regular team member) N.B. the level of support you require is likely to be greater in the developing world or in challenging environments, especially those which you are new to.

Briefing to other expedition members on own particular peculiarities and worst case possible scenarios – people need educating.

Insurance – only covers you for unforeseen accidents not existing for conditions that deteriorate, it is therefore important to make a list of the precautions you have taken to stop an existing condition deteriorating, ideally showing you have taken more precautions than normal.

Time spent together in a challenging environment. Anyone can survive a week-end away knowing that they are only a mobile phone call away from food, transport and a hot bath. Sustainable outdoor living requires careful planning and implementation.

## **Importing medical stuff you will need**

1. Doctor's certificate
2. Retailer's costing of the items that you have with you
3. Manufacturer's specification
4. Personal accompanying letter explaining needs and purpose of the items being imported.
5. Letter from relevant embassies both home and host.
6. Essential to keep smiling

## **Once you are there things to expect**

Limited, if any, wheelchair access to buildings/shops. Only up-market hotels are likely to have any wheelchair accommodation/ toilets. Ground floor location is as good as it gets.

Transport is likely to be cheaper, however access can be a problem. Manual rickshaws are quite high, whereas if you can transfer reasonably the auto rickshaws are fairly friendly.

To be honest you don't really need to have access to all the shops since it's generally easy to get someone to get whatever you need. Most hotels or hostels will be able to arrange for a messenger to collect items for you.

If you go with your pigeon dialect you are likely to get burned even after haggling. If someone goes shopping for you they are likely to get a better deal, being a local. Of course with their commission you are likely to end up spending the original figure had you bought the item yourself however you will have saved a lot of time and hassle.

Attitudes that you will come across range from-

1. Curiosity because you are different, the advantage is that in a developing country every visitor gets stared at.

2. Compassion, because you are disabled, through courtesy, because you are a guest.
3. Contempt because you are all of the above.

## **Personal Perspective - yourself within the team**

It is very difficult to see yourself as a useful member of the team, in a wilderness environment, since movement and function are restricted by physical constraints.

Therefore things need to be placed near you if you are to use them with any success. This calls for mental agility and projection- not always easy, if you have exhausted your physical energy on your day's activity and dragging yourself to the campsite. Also if you are travelling, your kitchen/toilet will change from day to day requiring an immediate appraisal of the situation (when an object has been moved once people are rightly reluctant to move it again).

It does get easier with practice but you must accept both your own limitations and those of others.

You can offer emotional /spiritual support to members whilst they are doing the portaging and you are sitting pretty.

Personal health and hygiene must sometimes be sacrificed for the group continuity and well being - when all are tired and tatty it's no good requesting the comfortable seat/bed if it is already being occupied by another team member. Likewise portaging of your personal kit will always take time because people need to sort their own stuff out first.

Training will help but expeditions by their nature mean unforeseen circumstances occur.

Physical/mental/emotional strain will push you beyond your usual boundaries if things are looking a little shaky:

- 1 Don't panic - get what you need to survive one day
- 2 Relax you've now got 24 hours
- 3 Start planning consolidation of kit and possible escape routes

When asked how much something costs play down the price. Personally I find it embarrassing that we have so much and they have so little.

As a disabled person you may be viewed as really rich having all these people running around after you especially when portaging and all you can do is merely direct - be humble.

Any piece of equipment can and will fail eventually – be ready to mutate and survive.

E.g. Branches become crutches, clothing becomes bandages.

## **On Rafting**

Portaging kit – forget it. It is usually enough just to drag your own sorry arse to and from the river.

## **Mobility**

On rough terrain mountain bike tyres are recommended

On sand – large sand tyres can be fitted to a wheelchair.

Another possibility is a sand-sled similar to a plastic snow –sled with either back support for sitting or you could lay on your stomach. This can be propelled by poles.

Another possibility would be inflatable clothing that would allow you to roll along.

Tensioned ropes could be laid out and you could drag yourself along with jumars.

## **Toilets**

Privacy in developing countries – forget it.

“When you've got to go you've got to go” is the philosophy adopted by most people so you won't be the only one baring all to the world. Most of the population do it frequently.

Portable toilets do not work on cobbled ground

Should be situated near to the river for ease of cleaning and possible accidents.

This will mean less distance to portage both you and the toilet over difficult terrain. Disadvantage here is the possible contamination of your water supply.

If your mobility is restricted you tend to walk/crawl on your hands, which means they get dirty whenever you move therefore a hygiene routine has to be implemented.

Need to wash hands while sitting also need a brace for support as in the

case of manual bowel evacuation.

See possible toilet plan (needs to include an umbrella if you aren't going to freeze or fall to death.

Digging a hole in the sand – smaller rather than large, as the sides tend to collapse and take you down with them.

Peli-cases can be used for support.

A good deal of self-assessment needs to be carried out in the training weeks.

## **Jobs for mobility disabled person**

Modular tent erection

Cooking and preparing food

Communication – practice as much as possible the language of the host country

Second in command since you are likely to be in the hub of the camp you are likely to be processing information from all the team members as they drift in from their various tasks.

Paperwork – any group of people need certain bits of paper.

However it is important that some jobs be done on a rota basis so people appreciate the whole expedition experience and people get time off to just be.

## **Pressure Relief and Skin Protection**

Padded Clothing

Limited mobility means more time spent on backside, knees and elbows. Skateboard / roofers pads could work.

If you have bony bits e.g. backside. A Jay Protector is fine if you are remaining stationary however if you move the Jay has a tendency to slide out from under your backside.

Any lack of sensation can lead to

1. temperature problems i.e. too hot = sweat and eventually burns, too cold – frostbite and thermals.

2. Abrasion problems from rough terrain and wear e.g. sand rubbing against sensitive areas.

Trousers and jacket made from body armour similar to motorbike stuff will offer protection.

Another possibility is an all-in-one romper suit with pockets so gel / protective plates can be inserted where needed.

Temperature tests need to be carried out on any item that is going to be placed next to sensitive skin.

Need pressure-measuring system for whole body not just backside in various positions

Different disabilities will necessitate different clothing. Many tailors/seamstresses are more than happy to take on the challenge.

## **Portable sterilising unit**

Something similar to the Belgian cigarette rolling machines i.e. a container where a used catheter is placed into the unit and with a whoop and a swoosh through some sterilising solution hey presto you have a fresh one ready for action.

Could be powered by solar possibly transferring into ultra-violet rays to clean the catheter.

# Psychology Report

## A study of the interaction of an integrated team whilst completing a four-month river expedition in India

**Looking at the experiences of six individuals on a highly task-oriented, mobile, expedition, within a culturally and environmentally diverse field work setting. The study gathered qualitative data on the individuals experiences and perspectives over a four-**

### Introduction

The concept of human communication and interaction concerns every aspect of our daily existence. Perhaps more precisely within the sports and working environment.

One activity that could potentially epitomise the extent to which we, as humans, effectively interact is the contained experience of an expedition. This particular expedition involved six people who hardly new each other in a quest to canoe the River Ganges to the best of their abilities. The trip was initially scheduled to take about 3 months and involve about nine months pre-expedition planning. The expeditioners had been gathered together over a 10-month period from around the U.K. Meetings revolved around planning and were, understandably difficult to organise.

The travelling aspect was to include time deadlines to meet with Indian organisations, scientific projects, development of local contacts, collection of information for an educational tour on our return, as well as field testing of certain equipment. In essence, it was to be far more than a canoeing trip.

## **Aim**

To consider the individual perspectives on team interaction whilst on a task-oriented field study or expedition.

## **Background**

The purpose of including a field study on individuals and their view of day-to-day life on the trip was to obtain information about interaction within a small group situation, under pressure, where the individuals inevitably were to spend a great deal of time in each other's company. Hopefully the observations will prove useful within the working, sporting and expedition environment and help others be aware of the many factors that are of concern in small group operations. Furthermore, it would seem that a need for information to help expedition leaders has been highlighted.

Whilst research on team work has been carried out in sport (Carron) and business (Covey) to date little has centred on the expedition setting alone. Current information used is based on sport and business. Qualitative fieldwork through participant observation whilst on an expedition will, hopefully, ascertain any specific respects that are specific to expeditions. Then work can be extrapolated from the expedition setting to sport and business and not just the other way.

## **Methodology**

To obtain relevant information three modes of research were used, the questionnaire, interviews and observations. Questionnaires were provided before leaving for India. Interviews were conducted at the beginning, in the middle and at the end of the project and observations carried out throughout. Informal talks supplemented the observations. The raw results will require a great deal of analysis and will hopefully be part of an MSc or PhD thesis.

## **Summary of Findings**

To prepare for such a trip it is important to consider the psychological and emotional well being of a team on any expedition. As such, preparation time needs to concentrate on developing cohesion before concentrating on the task aspects. The time spent preparing for an expedition that requires team members to live together, in close proximity, for any length of time should be weighted towards the developing of relationships and awareness of each other's strengths and weaknesses as well as the development of an atmosphere of support. If an enor-

mous amount of technical matters also need covering then preparation time should be lengthened to prepare for this factor.

# Medical Report

## Medical problems and environmental hazards encountered by the team

**Personal hygiene and camp discipline played a key role in maintaining the health and safety of the team. The most common medical problem on the journey was Gastro Intestinal often caused by hotel and restaurant food other than that which was prepared at camp.**

### Introduction

Health and hygiene are an important part of any expedition and need careful consideration before, during and after a trip. Before leaving the U.K. all participants made sure they had the appropriate vaccinations and personal medication needed for travel in India.

All team members were given a first aid refresher prior to departure, in addition all members were taken through the major components of the medical kit. One of the team was assigned “medical officer” to ensure that an objective view of people health was able to be gained at all times. Records of participants health were maintained during the journey, all medication used was recorded by the medical officer.

Water purification: A great deal of thought was given to the area of water purification which had the potential to make or break the trip. We used a variety of methods including filters, boiling and sterilisation (see equipment report for details).

### Medical kit

A comprehensive medical kit was put together to cover basic first aid situations and containing appropriate medicines for travel on a river in India. This was kindly donated by World Challenge Expeditions.

## Summary

Throughout the journey there were a number of medical problems ranging from infected cuts and insect bites to Gastro Urinary and throat infections. Several suffered from back injuries.

The most commonly used drug was Ciprofloxacin an antibiotic used to treat diarrhoea, which was a recurring problem with most team members. Other items commonly used were Amoxicillin, Ibuprofen, Paracetamol, Calamine lotion, Betadine solution, Hydrocortisone cream, throat lozenges, plasters and bandages.

## Major Medical Problems

A total of thirteen sustained bouts of diarrhoea were encountered by the team. Treatment in mild cases consisted of a single dose of Ciprofloxacin and in more serious cases a full course of Ciprofloxacin.

Four people suffered with chest infections, treated with Amoxicillin.

Minor unidentified skin irritations were relatively common and were treated with antiseptic solution and bathing in clean water.

All members of the team suffered from muscle strain at some point especially in the back and shoulders, muscle strain and back injuries were dealt with using Ibuprofen and rest.

Minor cuts and abrasions were treated with antiseptic cream, all efforts were made to ensure that even the smallest abrasion was kept clean.

The majority of the problems were of a gastro urinary nature and Ciprofloxacin was by far the most useful drug in the medical kit.

It was extremely useful to have Diorilite sachets, to help re-hydrate people to restore the electrolyte balance.

We had an expedition medical kit with us which were were fortunate not to require a great deal. When we needed to replace the antibiotics, we found that major pharmacies in large towns or cities carried all the supplies that we required.

## **Traumatic Injuries**

The following section outlines the injuries sustained by two members of the team during an attack by armed bandits during the third month of the team's journey in India. The injuries sustained by the two team members were from two sources – impacts from a large pole used by the bandits to propel the boat, and the butt of one of the four pistols carried by the gang. The injuries and the field, in country care, and follow up are detailed below.

### **Casualty One**

Bruising and minor lacerations to the skin above and around the Right Orbit as a result of impacts with the butt of a pistol. This wound was cleaned in the field and Betadine applied.

Major lacerations to the Scalp in a 'Y' shaped configuration as a result of major impacts to the top of the Cranium with a large pole. The scalp was shaved and the wound irrigated in the field before evacuation to the local village hospital, where the wound was closed by the village doctor. Arrangements were made for the casualty to receive a scan and x-ray during the following day in the nearest major town – Gahziabad.

Major bruising of the right arm as the result of sustained blows by a wooden pole to the lower arm. Initially the wound was treated as a fracture, a subsequent X-ray revealed that it was in fact only soft tissue damage, which was treated by compression and elevation.

### **Casualty One**

Bruising to the shoulders and thoracic area of the back as a result of blows sustained by a pole. Treated with Movelat and as much rest as possible.

Lacerations to the lips and soft palate of the mouth as a result of a gun barrel being forced into the mouth, treated with a salt water gargle.

Chipping of teeth on the lower jaw two lower.

### **Follow-up in India**

All major injuries were re-examined when the team reached the calm of Calcutta in West Bengal. X-rays, scans and physiotherapy consultation was arranged for those hurt with contacts in the Indian Canoe and Kayak Federation.

### **Long term side effects**

The injury proved to have the longest lasting and most profound affect resulting in one of the team having to leave the team. All injuries apart from those to Casualty One's lower arm have left no sustained damage, the lower arm injury still requires regular physiotherapy and pain management some ten months following the incident.

## **Recommended books**

Expedition Medicine – Royal Geographical Society

Far From Help – A course manual from Dr. John Dallimore

## **Follow up**

All team members were advised to have a medical check on return to U.K. All team members were found to be fit and well, with all Gastro intestinal problems and back strains clearing up within weeks of the team's return to the UK.

The only long lasting injury suffered by the team was the injury to the lower arm sustained during the bandit attack that has resulted in a semi-permanent loss of function in the individual's right hand.

# The Interpreter

## The unsung hero Mitesh Mikanjee

**In difficult situations clear communication and diplomacy go a long way to ensuring the success and safety of a fieldwork team. The need for an interpreter with good communication skills was clear during the planning of the expedition. Mitesh's smile in even the most adverse conditions proved to be one of the greatest assets**

The expedition team attribute much of their success to the efforts of Mitesh Mikanjee who acted as the interpreter throughout the journey in India. The team describe Mitesh as the “Unsung Hero” of the expedition. Here are his comments in his own words.

I was born in India and brought up in Birmingham from the age of seven. My Indian language is Gujarati, which is spoken in the North West of India. The main language of India is Hindi. Before the expedition, I remember watching Hindi films with my parents when I was little, I think that helped me a lot without realising it. After deciding to go on the expedition I practised Hindi with my mum and started to realise how little I knew.

When I arrived in Delhi I found that I was not needed to translate very often as English is spoken quite widely in Delhi. However, my knowledge of Hindi was useful, as I knew when we were being taken for a ride. One huge benefit of knowing the language was being able to haggle. It is an unwritten rule that you have to haggle, the prices that you see are not what the retailers expect you to get. Therefore one of my jobs during the expedition became that of a personal shopper for the rest of the group, which I enjoyed. This also improved my Hindi and prepared me for the villages.

I was getting quite confident in Delhi, but was apprehensive about

going into the countryside. I imagined the people there to be less civilised and more protective of their surroundings and could imagine being the one person that would feel the brunt of any disagreement. This however, did not prove to be the case, the people were very friendly and interested in what we were doing. I spent a lot of time explaining to villagers what the expedition was all about, many people thought that I was a guide for the rest of the team which I found amusing and flattering.

I was honoured to be a prominent part of the team, it was stressful and exhausting at times but overall I enjoyed it very much.

# Expedition Logistics Report

Who did what and when

**Logistics links the fieldwork environment to the needs of the task, the team and individual.**

This chapter should be read in conjunction with the chapters on “preparation” and “if we had our time again”.

## Overview

For a mobile project of this nature logistics and field organisation were the linchpins to the success or failure of any aspect of the project.

### Packing

Packaging material was provided by:

Sealed Air Products

### International Freight

Provided by:

Transglobal – the transshipment company

DHL – Medical Support for Disabled Team Members

DGI – Shipping of Science Equipment and Testing Chemicals

### Permissions

Permissions and letters of support were gathered from:

British High Commission

Indian Ministry of Sports

# Staying in Contact

## The role of the Internet in creating an interactive expedition

**Using the Internet and world wide web made it possible for the team to involve friends and family and sponsors in its day to day experiences making the expedition and the team's experiences open to a wide audience without delay.**

During the fieldwork phase of the Ganges '98 Expedition the main communication with the expedition support network was by telephone and e.mail. E.mail facilities are available throughout the length of the Upper and Lower Ganges Valley. Prior to departure the team set up a 'hotmail' account. Having a 'hotmail' account allowed the team to send messages back to the UK; this was different to the main account back at Brunel University which allowed the support team to act as a 'fire door' ensuring that the field team were able to concentrate on the job in hand.

The outside world was kept abreast of the expedition's progress via a web page which was set up and managed by Richard Mitchell of Brunel University print room. The web site received over 1000 visits during the fieldwork phase of the expedition providing news for friends and family and supporters as well as providing exposure to sponsors; this was despite few opportunities to promote the web site address before departure.

# If we had our time again

You cannot prepare too much

**A reconnaissance and an extensive support network at home and in country are essential to the success of the project, especially if one is to support an integrated team.**

Although overall the expedition can be said to have achieved many things, there were however many lessons learned by the team and those involved in the planning and support of the project. The following section outlines some of the feedback given by the team and its supporters.

## Send an advanced party

Due to budgetary constraints a full recce was not possible during the preparations. Many of the logistical problems that the team faced would have been smoothed if it had been possible to undertake a full reconnaissance. The medical drops that the team required would have been able to be placed in more strategic places, negating the need for forced rest stops.

A reconnaissance would have been useful in briefing the team in more detail about the task that lay ahead of them and may have made the personal mental preparation easier.

## Pre - send medical supplies

Many of the logistical problems encountered by the team were to do with the importing of medical supplies. The major barrier faced by the team was getting the shipments out of Customs in Delhi. We experienced bureaucratic delays on shipments. We now know these are perhaps understandable. Protectionist import controls and duties in place cause delays in clearing, no matter how worthy the cause or how plau-

sible the story. They may have heard all the reasons before but rules are rules and appealing for solutions takes time, as we discovered despite the best efforts of those hugely experienced agents who were helping us. Perhaps a more practical way of getting the supplies into India would have been to bring all the supplies into Delhi in one shipment with all the appropriate paper work and permissions, this would then be able to be split into smaller consignments for regional medical drops en route.

### **Medical Back-up in India**

The major medical incidents including those traumatic injuries sustained during the bandit attack were dealt with by extended first aid procedures until comprehensive medical care and assessment could be accessed by agencies in India. This adaptive system worked well during the fieldwork, however it was reassuring to know that the team could call on East West Medical in case of major trauma.

### **In Country Logistics Backup**

During the initial stages of the fieldwork, contacts were made with Indian organisations, the Indian Canoe and Kayak Federation and Snow Leopard Adventures. Both organisations provided an 'in country' office, in hindsight these relationships were one of the most valuable pieces of back-up and logistical support available to the team.

The Web also provided a valuable source of publicity for supporters and sponsors, as well as keeping us in contact with friends and family. An amazingly practical new expedition tool.

### **Expedition Support Back Home**

Set up a dedicated expedition office the sole role of which is to maintain your interests at home whilst the team is in the field. This is especially important when undertaking a long expedition. There is no doubt we would have benefited from having a full-time "base camp" anchor team at home, especially when supplies were delayed or when we needed to change our plans or when sponsors or supporters needed information. The team at Brunel University and Franco Ferrero as canoe adviser in Wales all helped enormously but they had their own work and responsibilities and no doubt some saw our absence to an extent as being off on a jolly.

### **Use of the Web**

The web site worked well. As the site grew the team in the field were able to see their experiences grow in front of their eyes providing a source of personal achievement for those involved in the sustained fieldwork. They could see their reports appear complete with maps and could read of the interest gained from schools and others in the expedition. At times the telephone and fax helped keep contacts going, too.

### **The Media**

In a modern media age the impact of long absences is lost. News is

even hotter off the press than in the past. The desire is often for shorter, sharper pieces of news as it happens. If the project was to be run again over a similar length of time then there would be great value in making even stronger links with media in India to ensure that the exposure for the project could build over a range of formats in the country so that would then be able to feed any media interest both at home and internationally. This would then make any future project more successful in the eyes of commercial sponsors and funders and make future fundraising easier.

#### **In Summary**

A reconnaissance and an extensive support network at home and in country are essential to the success of the project, especially if one is to support a pioneering integrated team.

# Navigation

## Plotting Locations for Logistics and Science

**Fieldwork elements of the expedition demanded that accurate positioning was charted throughout the journey and locations of the sample testing precisely identified to ensure a proper spatial framework for the scientific fieldwork.**

During the fieldwork phase the following navigation aids were used by the team to ensure that the team was able to plot its course and provide accurate locations for the water sampling required as part of the scientific project.

Map and Compass

Tactical Pilot Charts

Type 4NL Compass

Silva XL 100 GPS – Global Positioning System (Hand-held)

The GPS provided by Silva UK was especially useful in the dense fog of the North Indian Winter. Accurate navigation also provided support for the scientific element of the project.

The Ganges is a mature river. A GPS often afforded vital additional information about the team's location allowing us to interpret the maps more accurately. Plotting the exact position was often a challenge given the ever-changing landscape of the sandbanks and flood plains and the frequent absence of recognisable landmarks.

# On Return

## Writing up Community Education Saying thank you to supporters and sponsors

**Maintaining the momentum of the post fieldwork phase of an expedition requires more energy than any other phase of an expedition. It needs special application and talents not necessarily found in those with the adventure derring-**

The following section outlines the activities of the team, since its return.

### Talks and Presentations

Welsh Canoe Association  
WaterAid  
Prince's Trust  
Schools

### Media and Publicity

Carlton  
Yak brochure  
National and local press and BBC radio

### Reports

RGS  
Equipment evaluations for sponsors

### Looking after Sponsors

Editing photographs for sponsor  
Returning equipment  
Writing thank you letters

### Administration

Settling accounts and financial matters  
Following the publication of the report it will be possible to plan additional talks and presentations to support WaterAid and Sponsors as required.

# What next

## Recommendations for the future development of integrated expeditions

**Awareness raising, equipment development, training and education need to continue to facilitate integrated expeditions for disabled explorers. We need to ensure the trend started at the Disabled Explorer's Conference is able to contin-**

The Ganges Expedition is the latest of three expeditions following the Disabled Explorers Conference in 1995 at the Royal Geographical Society. Much has been achieved since December 1995, not just by those involved in the Coppermine, Israel and Ganges expeditions which have their genesis in the work of the Design for Life and Adventure Designs team at Runnymede.

The need is now to ensure that there is an integrated structure to support the needs of young Disabled Explorers involved in integrated scientific and expedition projects.

A structured awareness programme will be required to ensure that current integrated projects are able to inform and inspire those whose dreams are just forming.

There is also much to do to ensure that today's expeditions continue to move towards integration, by providing appropriate equipment for use in the field, documenting new approaches to expedition structures and logistics to include the needs of an integrated team, and documenting and publicising the experiences of the current generation of disabled explorers.

*Integration is a process not an end result.*

# Appendices

Canoes and River  
Nutrition  
Equipment  
Repairs  
Finance  
List of illustrations  
Endpiece

# Canoes and the River

**The Ganga is the river of India, beloved of her people, round which are intertwined her memories, her hopes and fears, her songs of triumph, her victories, her defeats. She has been the symbol of India's age-long culture and civilisation, ever changing, ever flowing, and yet the same Ganga.**

**Jawaharlal Nehru  
First Prime Minister of India  
born in Allahabad on the  
Ganges.**

The mighty Mother Ganga flows from her source in the Gangotri Glacier in the Himalayas to the sea at its magnificent delta in West Bengal. The Ganga is a mature river that defies accurate description, especially in its lower reaches. It is the spine, the artery, the heart of India. The river is often described in sections which have specific characteristics and interest for paddlers. Here are our observations.

## Top Section

Described in Pete Knowles book "Himalayan White Water".

## Diapreg to Rishikesh

Rishikesh to Haridwar - Grade 2

## Below the barrage at Haridwar

Grade 1 - presenting no real problems apart from shifting sandbanks and urban hazards associated with any river that passes through major areas of habitation.

The main channel is not always obvious this can sometimes mean that people have to get out and negotiate sand bars.

## The Lower Section

The mother Ganges finishes in a delta that straddles the border with India and Bangladesh, indeed much if not all of Bangladesh is located on the delta.

Our journey took us down the Indian Ganges and the Hugli from the dam at Farakah to Calcutta.

## Notes

Bridges and barrages are sensitive politically; photography can cause problems and raise suspicion with the Indian security services.

# Nutrition

**"Never eat more than you can lift."**

**Miss Piggy**

## Introduction

The following section outlines how the team's daily menus were calculated, and how the daily calorific intake was structured to provide maximum benefit. The importance of food, diet and nutrition during any fieldwork project cannot be understated, this is after all what drives the team. During the five months of the expedition sourcing food and maintaining supplies was one of the key tasks for the team. The need to buy food en route brought with it many beautiful exchanges between all members of the team and the locals along the length of the Mother Ganga. Our lives whilst on the journey were largely sustained by the local produce of the Ganga valley, by produce commonly available in India, bought in large towns such as Haridwar, Kanpur and Varanasi.

Our luxuries provided vital additions and included catering packs of tuna kindly donated by the Heinz Company and wholemeal biscuits supplied by United Biscuits. The luxuries which seem so basic back in the UK helped us maintain a largely balanced diet and enabled us to have the occasional comfort meal to help maintain the team's morale.

Some might argue that we would have made better time during our journey if we had a support team cook and a prearranged balanced supply of rations, with a dedicated support team. The team rejected this option during the planning of the expedition. Our choice ensured that we were able to minimise our impact on the environment. Sourcing food and supplies locally allowed us to keep to budget. En route the team invested its resources in the local economy of the villages and towns we were fortunate to pass through during our journey.

## Lessons Learned

During the expedition the team came to the following conclusions concerning our approach to food and supplies:

Cooking from fresh ingredients whilst providing a tasty meal can take up valuable time and place the cook or cooks under extra pressure.

Sourcing food from the markets was generally thought of as a nice job,

allowing those of the team with little or no Hindi to expand their vocabulary.

On arrival in villages the team felt that we were more accepted by local people once they saw that we were carrying our own food, and that our diet was similar to theirs.

All in all the team felt that it was able to gain a real taste of India, our approach meant that we followed a similar pace to the locals, enabling us to gain a greater understanding of the culture and people whom we were fortunate to meet during our journey.

## Basic Nutritional Considerations

The type of exercise was assumed to be purely aerobic and heavy.

First the calculations during the planning considered the basic nutritional building blocks and the calorie intake of each element

|               |       |         |
|---------------|-------|---------|
| Proteins      | 1gram | =4 cals |
| Carbohydrates | 1gram | =4 cals |
| Fats          | 1gram | =9cals  |
| Vitamins      |       |         |
| Minerals      |       |         |

The estimations then considered that the type of exercise we were to do would require a mix such that

|               |     |
|---------------|-----|
| Carbohydrates | 80% |
| Proteins      | 10% |
| Fats          | 10% |

made up our daily nutritional needs and from this we considered that a man would need about 5000 calories and a woman would need about 4500 calories per day.

## Fluid Intake

Fluid intake for hot conditions and heavy exercise was estimated to be 4-6 litres per day.

## Example Foods

The next estimation was to investigate the type of foods available in India and make a list of them in terms of the main nutritional elements. That is, whilst most foods will have a mixture of carbohydrate, protein or fat we estimated the most prevalent in each foodstuff. This would ensure that we would be able to balance our diet effectively.

### Carbohydrates

- a) Pitta breads, cereals, flour, pasta, rice
- b) Beans, peas, lentils.
- c) Fruits
- d) Vegetables

### Proteins

- a) meat, fish, dairy products
- b) Legumes, rice, corn, grains

### Fats

- a) Frying etc.

### Vitamins and Minerals

All foodstuffs.

## Calorie Intake of Typical Foodstuffs

The next calculation involved the estimation of calorie intake for typical foods.

| <u>Food</u>        | <u>Number</u> | <u>Amount</u> | <u>Calories</u> |
|--------------------|---------------|---------------|-----------------|
| Pancakes           | 2             |               | 150             |
| Oat flakes         | 1 cup         | 4oz           | 75              |
| (with milk powder) |               |               |                 |
| Rice               | 0.5 cup       | 4oz           | 75              |
| Chocolate          |               | 2.5oz         | 335             |
| Chocolate (milk)   |               | 4oz           | 542             |
| Sugar              | 1             | tablespoon    | 50              |
| Cream cheese       | 2             | tablespoons   | 100             |
| Goat's milk        | 0,5           | cup           | 71              |
| Apples             | 1             |               | 60-90           |
| Bananas            | 1             |               | 90-100          |
| Peanuts            | 0.5           | cup           | 440             |
| Peas               | 0.5           | cup           | 60              |

This list provided a rough estimation of the calorie intake we were consuming to ensure that it met our needs. In reality, of course, we ate as much as we wished at each meal, sometimes according to the state of our tummies at the time. But knowing roughly what would be an appropriate intake for the effort involved, enabled each of us to keep an idea in mind of what we should be taking to keep us going.

## Diet Split

With the amount we would have to consume it was common sense, but important, to appreciate that we could not consume all of it in one meal and that we would require a gradual release of calories during the day. Hence we then estimated a gradual intake process.

| <u>Meal</u> | <u>%</u>    | <u>Calories</u> |
|-------------|-------------|-----------------|
| Breakfast   | 20          | 1000            |
| Snack       |             |                 |
| Lunch       | 40          | 2000            |
| Snack       |             |                 |
| Evening     | 20          | 1000            |
| Drinks      | 20          | 1000            |
|             | <u>100%</u> | <u>5000</u>     |

## Basic 10 day Calculation

We considered that we might have to carry food for 10 days particularly in remote and sparsely populated areas. So the next stage in the process was to transpose the calculations into a 10 day shopping list.

$$5000 \text{ cal} \times 6 \text{ people} \times 10 \text{ days} = 300,000 \text{ cal}$$

@

$$80\% \text{ carbohydrates} = 240,000 \text{ cal}$$

$$10\% \text{ Fats} = 30,000$$

$$10\% \text{ Proteins} = 30,000$$

Where for example 1 pound of rice = 300 cal and 8lbs = 2,400 cal

## Example Calorie Split

|                            |                   |                         |
|----------------------------|-------------------|-------------------------|
| <b><u>Breakfast:</u></b>   | <b><u>20%</u></b> | <b><u>1000 cals</u></b> |
| 4 cups cereal              |                   | (300 cals)              |
| 2 pancakes                 |                   | (150 cals)              |
| Chocolate drink            |                   | (100 cals)              |
| 2 tablespoons (tbsp) Sugar |                   | (100 cals)              |
| 2 Bananas                  |                   | (200 cals)              |
| <b><u>Snacks</u></b>       | <b><u>40%</u></b> | <b><u>2000 cals</u></b> |
| 5 Chapati                  |                   | (300 cals)              |
| Chocolate                  |                   | (335 cals)              |
| Sundries                   |                   | (165 cals)              |
| <b><u>Lunch</u></b>        | <b><u>20%</u></b> | <b><u>2000 cals</u></b> |
| 4 Bananas                  |                   | (400 cals)              |
| 6 tbsp cheese              |                   | (300 cals)              |
| 2 Apples                   |                   | (180 cals)              |
| Biscuits                   |                   | (500 cals)              |
| <b><u>Evening</u></b>      | <b><u>20%</u></b> | <b><u>1000 cals</u></b> |
| 3 cups rice                |                   | (450 cals)              |
| Vegetables                 |                   | (250 cals)              |
| Nuts                       |                   | (300 cals)              |
| <b><u>Drinks</u></b>       |                   |                         |
| Chocolate                  |                   |                         |
| Orange/ fruit              |                   |                         |

## Example Recipes - (6 people)

We considered some recipes before we went out to India. However once we were used to the routines we generally invented some wonderful culinary delights.

**Fried Rice**

|                               |        |
|-------------------------------|--------|
| 0.25 cup                      | Oil    |
| 2.5 cups                      | Rice   |
| 1 tablespoon (tbsp)           | Garlic |
| 0.5                           | Onion  |
| 0.5 tbsp                      | Pepper |
| 1 tbsp                        | Ginger |
| Vegetables/eggs/meat to taste |        |

**Fried Noodles**

|          |         |
|----------|---------|
| 4 packs  | Noodles |
| 0.5 cup  | Oil     |
| 0.75 cup | Water   |

**Curry**

|          |                         |
|----------|-------------------------|
| 3 packs  | Chicken flavoured ramen |
| 3 cups   | Boiling water           |
| 0.25 cup | dried onion             |
| 1 tbsp   | curry powder            |
| 2 tbsp   | oil                     |
| 2 packs  | instant chicken soups   |
| 1.5 cups | milk                    |
| 0.5 tbsp | lemon juice             |

Chicken/vegetables to taste.

**Dhal Bhat - D.I.Y. cookery recipe! - Serves 6**

Dhal – curried lentil soup, Bhat – boiled rice

|                       |              |
|-----------------------|--------------|
| 2 cups                | pink lentils |
| 0.5 tablespoon (tbsp) | turmeric     |
| 1 tbsp                | ginger       |
| 1 tbsp                | lemon juice  |
| 4 cups                | water        |
| 2 tbsp                | salt         |
| 5 tbsp                | oil          |
| 1 tbsp                | cumin        |
| 0.25 tbsp             | cayenne      |
| 1 tbsp                | cardamon     |
| 0.5 tbsp              | cinnamon     |
| 0.25 tbsp             | nutmeg       |

### **Chapatis**

|        |                                                   |
|--------|---------------------------------------------------|
| 2 cups | Whole wheat flour (1 cup each of whole and white) |
| 1 tbsp | salt                                              |
| 3 tbsp | vegetable oil (fold in)                           |

Add water to stiffen.

Small balls of the dough are rolled out and then lightly baked on a hot plate or griddle over an even heat, (dried cow dung is best for the fire as it burns very easily). The rolled out dough should fill with steam cooking the inside. The Chapati is then turned to be cooked lightly on the reverse side. The end result should be cooked but not stiff.

## **Recommended Reading**

Outdoor Athlete – Total Training for Outdoor Performance  
Steve Lig – Cordillea Press Colorado USA 1962

# Equipment

## Boat Maintenance and Repair Kit

The repair kit was stored in a waterproof plastic container 12 inches tall and 6 inches in diameter to ensure the long-term integrity of the materials as well as ensuring that items stowed near to the repair kit were not damaged by the kit itself in transit.

4 D-ring patches

Duct Tape

Assorted Plastic – Royalex and Polyethylene strips 3 inches wide

Hexamine stove

Sailcloth Repair Tape

Whipping Twine

Zip Ties

Araldite tube

Assorted fine sewing needles

Silicone Seam Sealant for re-proofing and repairing tents

1 pair disposable gloves for use with adhesives

1 Neck seal

1 Wrist/ Ankle seal

Mastic Tape

Eyelets 1 inch diameter, for repairing the tarpaulin

Sailmaker's Palm for repairing tarps, tents and wheelchair seats and cushions

4 Sailmaker's needles 2 inch, 3 inch, 4 inch

Junior Hacksaw 5 inch

Clear Loctite

6 inch Adjustable spanner

Spare seat bolts

Silicone sealant

Puncture repair kit for Thermarest

Pop rivetter

Pop rivets 3mm, 4mm

Spare Junior hacksaw blades

Evostick – to attach Vinyl D-rings to a Raft

## **Dried Foods Barrel 1**

We used 12 inch by 5 inch diameter screw top plastic barrels to keep food dry and free from contamination from dirt, fuel or animals. The barrels were used stowed in the boats as separate items and lashed in with 7mm Polypropylene floating line to ensure that as much as possible all equipment stayed with the boats in the event of a capsize. The three barrels were distributed between the boats. Dieticians will note that these emergency reserves provided not a balanced diet or even a scientifically or nutritionally appropriate fare. The team simply took what we might like, to augment our daily food needs which we obtained en route from local sources along the river.

2 x 6 person pack Dried Bananas

1 x 6 person pack Chocolate Almond fudge Cake

1 x 6 person pack Oriental Sweet and Sour

1 x 6 person pack Tex Mex Eggs

3 x Dried Sauces – Cheese, Carbonara, and Mushroom

## **Barrel 2 Dried Food**

2 x 6 person pack Lentil Soup

2 x 6 person pack Big Bill's Cereal

1 x 6 person pack Apple Walnut Coffee Cake

3 x Dried Sauces

### **Barrel 3 Dried Food**

4 x Instant Custard

7 x Casserole / Pasta sauce mixes (for meat)

10 x Pasta sauces Bolognese, Carbonara, and Mushroom

2 x Spaghetti Bolognese

1 tube Green Pesto

3mm cord x 3m for repairs and emergency shelters

5 mm cord x 3m for repairs and emergency shelters

### **Paddles Box**

6 x Beaver Tail paddles suited to each member of the team as follows:

Chip - 66 cm

Mike - 66 cm

Mitesh - 66 cm

Eric - 66 cm

Suresh - 60 cm

Nuala - 56 cm

6 x cranked paddles

Chip 56 cm - 14 degree crank  
Mike 56 cm - 14 degree crank  
Mitesh 56 cm - 7 degree crank  
Eric 56 cm - 14 degree crank  
Suresh 54 cm - 14 degree crank  
Nuala 54 cm - 14 degree crank  
1 canoe seat cushion  
1 Mobile Adventure Banner

### **Eric Brymer Kit List: Yak Duo Dry Bag**

1 Mobile Adventure seat pad  
1 Yak fleece paddling top  
1 Yak fleece salopettes  
1 Yak 25m throwline  
1 Yak dry trousers large  
1 Yak cowstail  
1 Bedouin tent  
1 Yellow Protec Helmet  
1 Mobile Adventure insulated mug  
1 Yak Buoyancy Aid  
1 Yak Drycag Extra large

### **Nuala Mulholland Kit List: Yak Duo Dry**

## **bag**

- 1 blue thermal top
- 1 Yak fleece salopettes
- 1 Yak dry trousers
- 1 Yak buoyancy Aid
- 1 Gerber River Knife
- 1 set of roof rack straps for lashing down equipment into trucks and boats
- 1 Mobile Adventure Insulated mug
- 1 Dagger Water Bottle
- 1 white towel (I think it said towel Nuala!)
- 1 Aquapure filter bottle
- 1 set wet suit boots
- 1 Protec helmet
- 1 Yak 25 m throwline
- 1 Cowstail
- 1 Bedouin tent
- 1 seat cover
- 1 Kataydyn water filter

## **Nuala's Art Kit**

- 1 Orange pelican case
- 2 x small sketch pads
- Watercolour book

Paint brushes – 4 Assorted

Ruler

Telescopic pencil

Soft Leads

Pastels

Water Crayons

Crayons Pack 12 Water-soluble

Charcoal 8 Sticks

Mixed Pencils 20

Water Colours Travel set of 8 colours

## **Mike King Kit List: Yak Duo Dry Bag**

1 Sleeping Bag

1 Yak Buoyancy Aid

1 Gerber River Knife

1 Yak Dry Top Large

1 Yak 25m throwbag

1 Mobile Adventure Water bottle

1 Aquapure filter bottle

1 Yak fleece salopettes

1 pair Yak Dry Trousers

1 seat cover

1 pair foot support plates

## **Mitesh Makanjee: Kit List Yak Duo Dry bag**

- 3 x fleece tops
- 2 x thermal tops
- 1 Yak 25 m throwbag
- 1 Bedouin tent
- 1 seat padding
- 1 Art Box
- 1 Sleeping Bag
- 1 Yak Dry Cag
- 1 Yak Dry Bottoms
- 2 x pair shorts
- 1 pair River Shoes
- 3 x Underpants
- 1 Gerber river Knife
- 1 Yak Buoyancy aid
- 1 Plastic barrel 12 inch X 4 inch
- 1 Mobile Adventure Water Bottle
- 1 Aquapure filter bottle
- 1 Insulated mug
- Spare Aquapure filter for water bottle
- 12 x Energy bars
- 1 Film
- 2 x Trousers

2 x Ron Hill bottoms

1 Vest

3 x T-shirts

1 pen

1 helmet

Head gear

## **Chip Powell: Kit List Yak Duo dry bag**

1 Yak Dry Top large

1 Yak Dry Trousers medium

1 pair Tevas size 10

1 25m Yak throwbag

1 Protec Helmet

1 Mobile Adventure Water Bottle

1 Bedouin tent

1 pair Yak fleece salopettes

1 Yak fleece top

1 Stohlquist thermal top

1 spare Aquapure water filter

1 MSR fuel bottle

1 MSR Whisperlite international stove

Wetsuit boots

1 Yak buoyancy Aid small /medium

1 Ortlieb Heavy Duty Drybag

- 1 sleeping bag
- 1 Thermarest
- 1 Ortlieb Mapcase
- 1 packtowel
- 3 weeks supply of Paludrine
- 5 weeks supply of Nivaquine

# Repairs

## Introduction

During the four months of the expedition wear and tear on equipment had an effect on the performance of the team, stoves required cleaning, tents repairing and dry bags repairing. Portages via truck and the necessary handling took its toll on lantern glasses and fuel bottle alike. The day to day camp routine whilst travelling along a mature river, living mainly on the Mother Ganga's many sandbanks meant that drying, cleaning and repairing equipment was a large task during any rest stop.

## Most Common Repairs

### Mending dry bags

Small holes and abrasions to vinyl dry bags were mended with vinyl patches.

### Cleaning stoves

This was a constant job during the initial stages of the expedition, stoves proved to be a major problem. Dirty fuel and damp conditions proved to be the downfall of the Optimus stoves that the team had brought from the UK. The Indian replacements although more bulky and a little unorthodox required little or no maintenance. The most useful accessories proved to be:

Small – tooth brush sized wire brush

Long handled jet pricker

Funnel

(All accessories were available in major towns en route)

### Repairing tent zips

Damp sand and constant use in the damp conditions meant that tent zips needed to be replaced twice during the team's journey.

Replacement zips were put in at a modest 1200 Rupees

(about £17) for six zips and labour – express service. We found that this was best done at a small tailors – found in any town.

## Accidents

### Dent of Bow of Open Canoe

During the Water Rally in Varanasi one of the bows of one of the boats was bent through 90 degrees when the truck carrying the three boats and the equipment backed into the ancient wall of the fort at Chunar. No real damage was done to the fabric of the fort. However the open canoe required attention to make it serviceable for river use once more, this was achieved as follows:

- Canoe suspended from hotel ceiling

- End of canoe filled with hot water to soften the Royalex plastic shell of the canoe, bow straightened

- Re-enforcement plates added rivetted to main hull

- Cavities between re-enforcement plate and gunnel filled with silicone sealant

- Bow plates replaced

### Split of Paddle

During the four months there was need to repair three paddles:

Two Beaver Tail Paddles began to de-laminate, this was rectified by reshaping the tip and re-enforcing the tips with Araldite purchased in the local markets

The blade of one bent shaft paddle split along the grain, this was repaired by manufacturing a series of five carbon fibre re-enforcing pins to bridge the gap between the halves of the paddle. The pins were manufactured by the team out of whittled down sections of spare carbon fibre tent poles that were located into carefully drilled holes in the paddle. The structure was glued together using locally sourced Araldite, and held in place during curing by a makeshift vice constructed using a Spanish windlass made from Prusik loops from white water rescue kit. The structure was held in line during the curing process using the long aluminium stiffening rods from the AQUABAC postural support.

# Finance

## Introduction

One team member was given the task of maintain financial control throughout the field work phase. Prior to the expedition all finance was handled through an expedition Bank Account held near the expedition office, this included donations from sponsors and supporters and team members. Withdrawals from the account required the signature of two members of the team. During the lead up to the fieldwork phase finance was taken from the account and transferred into travellers cheques for use during the expedition phase.

Two members of the team withheld their personal contributions, their contributions were held in reserve and made by paying for some items on personal credit cards, this meant that there was an immediate backup source of finance available in the result of the loss of the team's travellers cheques.

The figures shown are for the team's total, unless otherwise noted. Our accommodation costs were low because we generally camped on the river banks or were accommodated by generous hosts or friends en route.

The expedition cost each team member approximately £1000 plus additional personal equipment needs.

| Project Estimates                      | £    |
|----------------------------------------|------|
| Canoeing Equipment                     | 8260 |
| Camping Equipment                      | 7760 |
| Medical Equipment                      | 410  |
| Photographic Equipment                 | 3100 |
| Training                               | 1520 |
| International and Local Travel         | 3690 |
| Air Freight (team contribution towards |      |

|                      |                      |
|----------------------|----------------------|
| sponsored shipments) | 1000                 |
| Food                 | 2200                 |
| Accommodation        | 120                  |
| PR and Marketing     | 1000                 |
| Sub Total            | 28,560               |
| Contingency 10%      | 2860                 |
| <b><u>TOTAL</u></b>  | <b><u>31,420</u></b> |

## Pre - Expedition Preparation Expenditure

This element of the project was funded by donations from individuals, companies and charities. All of the major equipment including: boats, science equipment and canoe clothing was provided by sponsors. Office and administration costs for the expedition were provided by Brunel University's Design for Life Centre. All training meets attended by the team were funded directly by team members, subsidised by rations donated by the Royal Marines; as a result there was very little identifiable expenditure during the first stage of the project.

## Income £

|                              |     |
|------------------------------|-----|
| Each team member contributed | 960 |
|------------------------------|-----|

## Expenditure

### Team Member contributions to logistics and preparation costs

|           |     |     |
|-----------|-----|-----|
|           | £   |     |
| Insurance | 200 |     |
| Flights   |     | 210 |
| Freight   |     | 220 |

### Team Expenditure During the Fieldwork

£

|                                                               |      |
|---------------------------------------------------------------|------|
| Food and Internal Travel                                      | 560  |
| Rafting                                                       | 550  |
| <b>Transport</b>                                              |      |
| Trains, Trucks and Rickshaws                                  | 1140 |
| Food                                                          | 1530 |
| Accommodation                                                 | 1460 |
| <b>Cooking equipment &amp; Safety Equipment</b>               |      |
| Utensils, fuel & safety gear<br>for science testing           | 190  |
| <b>Administration</b>                                         |      |
| Phone calls national and international<br>also E-mail updates | 410  |

## Contingency

Through the generosity of United Biscuits a contingency fund of £1,500 was set up and held at Brunel University. It sponsored the educational aspects of the expedition and also to support the emergency logistical requirements of the team, specifically to pay for the import duty levied on the Medical Supplies used by the disabled member of the team for daily living requirements. All finance for this aspect of the project was dealt with by Brunel University.

## Financial Notes

We initially estimated a budget of £5 per person per day for food in that we wanted to keep ourselves well fed since we felt stamina was going to be a problem.

Also the initial budget for accommodation was taken as an average of £1 per person per day for the duration of the trip, since we were to be camping most of the time.

Travel was budgeted at 80p per person per day.

However the logistics such as getting the boats out of the water and into a secure environment where and when we were able to take some rest and recuperation, along with the ever-evolving red tape infrastructure, meant our initial 2-3 day rest periods stretched to 5-7. Consequently accommodation costs were higher than expected. Similarly large portages due to time constraints and political instability meant transport costs were higher than estimated. However these elements meant we spent less time than anticipated in the field and we were able to refund members.

This was exchanged into Indian rupees. Over the course of the trip the exchange rate and commission varied from 70 rupees to the pound initially, down to around 65/66 by the time we left. The exchange rate for dollars remained fairly constant. Money was carried in the form of travellers cheques about 75% Sterling and 25% US dollars.

With hindsight it was not wise making the team leader, Suresh, the only signatory for the majority of funds. His role as leader was negated by frequently having to wait around in bank queues. However, the team's travellers cheques were distributed equally throughout the team so that the loss of any one set would not jeopardize the project as a whole.

| <b><u>Financial Summary</u></b>           | <b>£</b> |
|-------------------------------------------|----------|
| Team Contributions                        | 5760     |
| Total Refunds to Team Members             | 480      |
| Total fieldwork and logistics Expenditure | 5280     |

The figures shown give an indication of the costs incurred in mounting the expedition. However, we recognise that if the many voluntary contributions in goods, in time, in help and professional services were truly costed in, plus the time of the participants, very much higher costs would be reflected. By the very nature of expeditions, such sums are rarely collated, which is probably just as well.

# Endpiece

All illustrations produced by Hairyback Designs - Kendal, Cumbria, for the Adventure Designs project, Design for Life Centre Brunel University.

I take this opportunity to offer sincere thanks to my academic teachers, mentors, managers and colleagues. Their help and guidance, patience and fortitude has made all this possible. In particular I thank Professor Peter Isherwood, head of the award winning Department of Design at Brunel University at Runnymede whose support has made so much possible at DfL and to Russell Manoy, Head of Design for Life Centre - special thanks. Russell inherited the Ganges project when he took over DfL. He has kindly allowed our lengthy absences on field trials and assessments, and the long drawn out completion of this report at a time when our self-funding, not-for-profit centre has been under pressure to bring in money to cover the core costs of the centre. Without funding the centre has a constant struggle to continue our award winning work. The centre has had three products awarded the accolade of "Millennium Product" status and received special acknowledgement by the Prime Minister at the pre-opening launch of design excellence at the dome in December 1999.

The Design for Life Centre has an international reputation for effective, low cost research which empowers disabled people. Its work is desperately important, sadly it is not as business people say "sexy" and design for a better future does not attract charitable funding as readily as some of the high profile appeals.

So special thanks from everyone involved: to Professor Isherwood, Russell Manoy, Mike, John, Asha, Jaquie and Stan at DfL.

References: Throughout the expedition journey we discovered many Indian place names and words had a variety of English spellings. We ask for the understanding of all with the spellings used in this report, which have been based for expediency on those used in reference works such as "India Handbook" published by Footprint, and the "Anglo - Indian Dictionary" Hobson Jobson and other standard authoritative works;

Leith's Cooking Bible  
Good Housekeeping  
Oxford Dictionary  
Readers Encyclopaedia  
Good Housekeeping Cooking Encyclopaedia  
Blacks Medical Dictionary  
British Formulary

This report has been compiled by Suresh Paul FRGS with the collaboration of the members of the expedition group.

For those who enjoy hands-on needs assessment and the adventure of field trials and expeditions it has been a demanding but necessary exercise. Suresh Paul acknowledges with thanks the patience of the Design Department and Design for Life Centre team at Brunel University and the help and input on the report by John Matthews in his role as editor of the project. Notwithstanding much helpful input and advice any errors or omissions are down to me.

Thank you all. Suresh Paul FRGS BA (Hons)