

The Seeing is Believing Trans-Antarctic Winter Expedition

Supported by the Commonwealth

TheColdestJourney.org

PATRON: HRH The Prince of Wales
EXPEDITION LEADER: Sir Ranulph Fiennes Bt OBE



The Coldest Journey – Background 23rd November 2012

Expedition members:

Brian Newham, Leader:

Brian is an experienced British alpine mountaineer and advanced skier with considerable polar experience having spent more than 20 seasons in Antarctica and with nine visits to the Arctic. Aged 54, Brian has a BSc in Mechanical Engineering and has worked for the British Antarctic Survey as Field Assistant (mountaineer) and as Base Commander for Halley Station, Rothera Station and briefly at the NERC research station in Svalbard. For the last six years he worked as Logistics Manager for Galliford Try International, a UK-based construction company who have built a new £50m research station for the British Antarctic Survey at Halley. He has also worked as an expedition leader for Tangent Expeditions – a company that specialises in mountaineering, skiing and man-hauling trips to Greenland – including a successful east-west unsupported ski/kite icecap crossing. He was the polar guide for the Circle 66 Expedition (2008) – an attempt by an international group of breast cancer survivors to cross the Greenland icecap using dog teams. Brian has wide mountaineering and skiing experience around the world, including first ascents in Andes and Greenland. He has also covered many thousands of miles of ocean sailing with voyages to high latitudes in Alaska, Labrador and Greenland where he has combined sailing with mountaineering. He was awarded the Polar Medal in 1992.

Ian Prickett, Engineer:

Ian is a 34-year-old engineer from Gosport, Hampshire. After serving his apprenticeship in HM Dockyard, Portsmouth, he packed his bags and departed on his first of many backpacking trips exploring what the rest of the world has to offer. On his return to the UK in 2005, he applied to work for the British Antarctic Survey at the Halley 5 Research Station. Since then he has been heavily involved with BAS, working on projects at Rothera, Halley, Bird Island and King Edward Point in South Georgia. For the past five summer seasons Ian has been working at Halley building the new flagship research station, Halley 6. Ian ran the first ever Halley Antarctic Marathon as well as the first official Falkland Islands Marathon in Stanley. He is the only person to kite ski from the coast of the Brunt Ice Shelf, through Halley 5 and on to Halley 6. He has also participated in various expeditions ice climbing, camping and kiting. After hearing through colleagues about this amazing expedition he soon volunteered his services in helping to build

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TRUSTEES: Tony Medniuk (Chairman), Anton Bowring, Sir Ranulph Fiennes, Joanna Lumley, Richard Jackson, Gavin Laws, Michael Payton, Eric Reynolds & Alan Tasker

CHAIRMAN of SCIENCE COMMITTEE: Sir Peter Williams CBE FRS FEng, Vice President The Royal Society

DEPUTY CHAIRMAN of SCIENCE COMMITTEE: Prof. Dougal Goodman FEng, Deputy Director British Antarctic Survey 1995 – 2000

SCIENCE CO-ORDINATOR: Dr Tim Cullingford **MEDICAL RESEARCH LEADER:** Dr Michael Stroud OBE

MARINE SCIENCE CO-ORDINATORS: Dr Christopher McQuaid and Adrian McCallum

EXPEDITION LEADER: Sir Ranulph Fiennes **MARINE LEADER:** Anton Bowring **LONDON HQ OPERATIONS MANAGER:** Tristram Kaye

EDUCATION LIAISON: Phil Hodgson, Durham's Education Development Service **COMMONWEALTH LIAISON:** Derek Smail

COLD WEATHER EQUIPMENT DEVELOPMENT: Steve Holland & Team **POLAR CONSULTANTS:** Martin Bell, Liz Pasteur

EXPEDITION MEMBERS: Brian Newham, Ian Pickett, Spencer Smirl, Richmond Dykes, Dr Robert Lambert

the living cabooses in the UK. This escalated into being asked onto the expedition as one of the members of the Ice Team.

Rob Lambert, Doctor:

Rob is the expedition team doctor, and was also responsible for gathering much of the human and physical sciences research data en route. Rob grew up (almost) in the UK's sunny Lake District, and credits his family's broad-mindedness with his love of climbing, the outdoors, and dubious career choices. After first training as a mechanical engineer he went on to work for The HALO Trust, a British charity specialising in the removal of landmines and other debris of war in far-flung places. Four years later he trained to become a doctor, subsequently working in some of the UK's most salubrious Emergency Departments, as well as stints in New Zealand and Australia. Most recently he spent a year as doctor at BAS's Rothera Research Station in Antarctica. Elsewhere he has worked as a bartender, doorman, and management consultant, though not all at the same time.

Rob is a keen mountaineer and skier, and spends as much time as he can in the wild, chilly and beautiful parts of the world; sometimes this even includes his old stomping grounds in Cumbria. He also has a penchant for rugby, skydiving, and chess, and – among many essential skills for the expedition – he makes a mean cup of tea.

Spencer Smirl, Caterpillar Engineer & Driver:

At 28, Spencer is the youngest member of the expedition. He grew up in Peace River, a remote town in Alberta, Canada. As a child he developed a love of the great outdoors, spending family weekends camping and exploring the local river valley. Spencer has been an off-road motorcycling enthusiast from an early age, which prompted a lifelong interest in mechanics. In 2003 he joined Finning as a first-year apprentice and has worked with the company ever since. He has much experience working on the Caterpillar D6 series of tractor, as well doing overhauls on large bulldozers and assembling large mining haul trucks. Since 2011, he has been working at the Ekati diamond mine facility near the Arctic Circle, so he is used to the complete darkness, extreme temperatures and isolation of these regions. Spencer leapt at the chance to enrol for a place on The Coldest Journey and was named as one of the two mechanics on the ice after a rigorous selection process. Of his expedition team, Spencer has said: "I couldn't imagine a better team of men to trust my life to."

Richmond Dykes, Caterpillar Engineer & Driver:

At 30, Richmond is the second youngest member of the Ice Team. He was born and raised in Cookstown, Northern Ireland, where he caught the engineering bug at a very early age watching his refrigeration engineer grandfather at work. He served his five-year apprenticeship with CA Haffey and Son, finishing at the age of 21. Towards the end of his apprenticeship he specialised in heavy plant engineering and gained an NVQ level 3 in this area. After qualifying he worked as a mechanic on heavy track machines with the US Army in Fort Stewart, Georgia, for almost three years, before being transferred to Ft Carson in Colorado, where he undertook a communications upgrade engineering post.

Soon afterwards, Richmond secured a job back in his hometown working for Finning as a depot supervisor at the Lafarge Cement Works maintaining all the mobile equipment.

When he received an email detailing an opportunity to drive a bulldozer and work with Sir Ranulph Fiennes in the Antarctic, it instantly peaked his curiosity and he applied. After an intensive selection process he was invited to join the Ice Team as mechanic/driver. He considered the experience to be the "opportunity of a lifetime".

EXPEDITION BACKGROUND:

1. First winter crossing

The primary objective of The Coldest Journey was to achieve the first ever winter crossing of the Antarctic. Famously Captain Scott attempted a 60-mile winter journey in 1911, described later as 'the worst journey in the world'. Led by Sir Ranulph Fiennes, this expedition planned to cover 4,000 kilometers during the six months from 21 March to 21 September 2013, at temperatures as low as – 89.9°C. With a winter crossing of the Arctic having recently been completed by a Norwegian expedition, this is still considered the last major polar challenge remaining.

2. Charity/Fundraising

The expedition is raising funds for Seeing is Believing and over US\$ 2 million has been raised so far. Seeing is Believing is a global initiative to tackle avoidable blindness in developing countries. Eighty per cent of the world's blindness is avoidable with very cost effective interventions e.g. a sight-restoring cataract operation costs as little as US\$ 30 and a pair of glasses as little as US\$16. Seeing is Believing is a collaboration between the bank, Standard Chartered, and the International Agency for the Prevention of Blindness (IAPB). Since its launch in 2003, the programme has reached over 28 million people. Every \$ raised by the expedition is matched by Standard Chartered, doubling the impact on the ground.

3. Science

Foremost amongst its other activities the expedition has also gathered data for a number of research institutions around the world which, it is hoped, will contribute to understanding the effect of climate change upon the poles. CryoSat-2 (an environmental research satellite launched by the European Space Agency in April 2010) is designed to track changes in the mass of the polar ice caps by measuring the distance to the surface of the ice to within ½ inch. Year-round calibration on the ground is the only way to validate this data, so the readings taken by trained members of the Ice Team formed a vital part of this research. This work is one of five international scientific projects which was selected by the expedition's Science Committee including mapping the height of the landmass using new GPS techniques and taking core samples to establish the water flow from the ice sheet. The Ice Team also sampled for cryo-bacteria capable of withstanding the extreme cold conditions.

Throughout the duration of the project, the expedition doctor, Rob Lambert, conducted tests for the European Space Agency and NASA in a programme of physiological and psychological research aimed at studying the effects on the team members of extreme isolation and the inhospitable environment. With no search and rescue facilities throughout the winter months Antarctica provides an environment which is similar to the conditions faced by astronauts. Called The White Mars Project, it is considered to be the best simulation of the effects of space travel on humans.

In addition, the deployment of meteorological monitoring buoys on behalf of the World Meteorological Organisation was undertaken and oceanographic research was carried out for the Council of Scientific and Industrial Research during the voyage to Antarctica on board SA Agulhas

4. Education

The expedition has been engaged throughout the project in providing diverse, engaging, real-time educational content for schools. Microsoft developed a bespoke password-protected platform for this

purpose that was continually updated and managed using cloud technology, and was accessible to more than 43,000 schools in the UK and many more throughout the Commonwealth.

Using their on-board Iridium Open Port system, the expedition team have provided interactive and real-time educational content on their progress and involved schools in competitions while also feeding material for fully integrated curriculum modules. These courses were developed by Durham's Education Development Service – one of the UK's leading education resource providers – in partnership with Sir Ranulph Fiennes, Dr Mike Stroud and the expedition scientists, engineers, mechanics and Anton Bowring, the marine organiser.

5. Technological Innovation

The Coldest Journey has provided a test ground for technological developments – particularly in the use of vehicles in ultra-cold conditions. The fact that it is only now that this challenge is being attempted is testament to the sophistication of the technology required. Finning, the dealer for Caterpillar in the UK and Ireland, modified two Cat® D6N track-type tractors to tow two specially engineered cabooses. These housed the crew, equipment and fuel for six months in temperatures that can drop as low as –89.9°C.

For those operating outside the cabooses, the expedition team developed specialist clothing containing battery-powered heating filaments which protect the extremities from the ever-present threat of frostbite. Special breathing apparatus was provided by TopOut Masks to protect the lungs, as prolonged inhalation of air at these temperatures can cause permanent damage. Iridium supplied satellite communications equipment that made it possible for the Ice Team to relay back image and video content from a part of the world that is completely inaccessible by aircraft in winter due to the adverse conditions.

For further information please visit www.coldestjourney.org or contact:
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