

Polar Expedition



OUR COVER photo shows the man once described in the *Guinness Book of Records* as "the world's greatest living explorer" - Sir Ranulph Fiennes. On 1 November 'Ran' starts an attempt on one of the world's last unconquered challenges: the first-ever unsupported, no resupply, solo crossing of the Antarctic continent. Being a solo expedition, safety considerations and personal communications are of vital importance. Ran will be using modified amateur radio equipment to communicate with Morag Howell, GM0MUV, at Base Camp in Antarctica, whilst Morag's husband Lawrence, GM4DMA, mans the UK Base.

BASE CAMP

MORAG WILL live in a tent in the Patriot Hills area of Antarctica during the expedition. Both she and Ran will use Hands Electronics HF SSB transceivers which have been specially modified from Hands' range of amateur transceiver kits (such as those advertised in *D-i-Y Radio*).

Because Ran has to pull every gram of his supplies and equipment himself, the efficiency of his equipment is very important. The transceiver produces about 30W PEP output, yet weighs only 1.1kg, including the speaker mic and battery leads! It has been designed to work in temperatures as low as -52°C. Ran will use a specially-designed multi-frequency dipole antenna which has plugs and sockets for lengthening and shortening the array for different frequencies. The aerial will be supported on ski poles just 1m above the ice. Ran will also carry

a personal satellite location beacon which can pinpoint his position to within a mile or so.

Morag's main means of communications out of Antarctica will be by Inmarsat satellite, but she will also use a Yaesu FT-80 100W transceiver with terminated sloping-Vee and dipole antennas for links back to the UK. All her electrical power will be derived from solar panels but, if she has spare capacity, she plans to use this equipment for activity on the 14MHz amateur band as VP8CME.

At the UK end, Lawrence will be at the Base Camp in Scotland, using Racal tactical SSB equipment to rhombic antennas fed with 0.875in diameter Andrews Heliac cable. Lawrence says that Heliac is used in preference to open wire feeders due to the destructive influence of sheep!

EXPERIENCE

BOTH MORAG and Lawrence are highly experienced in polar expeditions. In 1990 they took part in the 'North Pole '90' expedition when Sir Ranulph Fiennes and Dr Mike Stroud attempted to walk to the North Pole from the northern Soviet Union. Lawrence wrote an article, 'From Radio Amateur to Explorer', for the second-ever issue of *D-i-Y Radio* in September-October 1991, and he and Morag featured in the poster in that issue. Then, in 1993, Ran and Mike walked across Antarctica and Morag and Lawrence provided the communications support. This was reported in the March-April 1993 edition of *D-i-Y Radio*.

Most recently, Lawrence featured in the September-October 1996 *D-i-Y Radio*, having helped a Raleigh International expedition in Uganda.

FUNDRAISING

RAN ALREADY HOLDS several Antarctic records and has raised millions of pounds for charity with his efforts. His latest expedition has HRH The Prince of Wales as patron and is being sponsored by Dyson Appliances. Called the Dyson Antarctic Solo (DAS) expedition, it is expected to take Ran 100 days to cross Antarctica, during which he will walk a distance of over 1800 miles and will have to climb to over 10,000ft, whilst pulling a sledge containing all his supplies. He will obviously experience extreme temperatures and high winds.

It is hoped that DAS will raise £3 million for the breast cancer charity Breakthrough, which is raising money to establish the UK's first dedicated breast cancer research centre. Dyson has pledged £1.44 million to Breakthrough and Ran is hoping to raise a further £1.5 million through personal sponsorship. You can help him to raise this sum by sponsoring him. For details, or if you simply wish to make a donation, call DAS on 0990 112226.

RSGB members Morag and Lawrence Howell, GM0MUV / GM4DMA, are an essential part of Sir Ranulph Fiennes Antarctic Expedition team.



Lawrence Howell, GM4DMA, holding the tiny Hands SSB transceiver which Morag Howell, GM0MUV / VP8CME (right), and Sir Ranulph Fiennes will use on the record-breaking Antarctic expedition.