

# 'THE GLACIONAUTS'

An intrepid team of documentary filmmakers from ORF Austria has completed one of the most extraordinary media projects, made on location in the icefields of the Arctic archipelago known as Franz Joseph Land.

They called themselves "The Glacionauts", and, as location filming goes, it doesn't get any harder than this!

Florian Camerer, as the unit's only sound engineer, has made three expeditions to the Russian Arctic, and here he describes the difficulties of recording in such unique conditions.

"We were going to record in an environment where temperatures often go below  $-45^{\circ}$ . My main concerns for the microphones were reliability, easy handling and a lack of susceptibility to the extreme temperature changes, as well as acoustic quality and noise performance. Among my principal tasks was the capture of the atmospheric background; the sounds of ice cracking, various bird noises and the wind (up to 90 km/h).

"However, the real difficulty was the extreme temperature. I made a special cover for my portable DAT recorder, a kind of centrally-heated sleeping bag, and wearing only a thin glove, I kept my hand in that, operating the controls from memory.

"I was very worried about mics, but the nickel diaphragms of the B&Ks have a very low temperature gradient compared to others with materials like Kevlar which stiffen in the cold with resulting changes in frequency response. I used a number of B&Ks - 4006s, 4007s and a matched pair of 4011s - and the omnis proved especially good for atmosphere recording. There was quite a range, from quiet background, where a low noise-floor is crucial, up to the 90 km an hour wind. As omnis are, by design, some 20dB less susceptible to handling and wind noise



*Making history: Florian poses as an 1872 explorer in front of the good ship "Tegetthoff"*

than pressure gradient microphones, they are well-suited to this task.

"I made quite extensive use of the APE adapters. Firstly, they alter the directional sensitivity characteristics of the 4006 to varying degrees depending on size. At the same time, the on-axis frequency response of the microphone is altered. With windscreens, you tend to lose highs around 5-10 kHz, and I like the way that the APEs compensate acoustically for this.

"As you can see from the photographs, I created a special mount for the two microphones, forming an AB-Stereo configuration, which could be carried on my backpack, allowing me to have my hands free. By the way, this strange-looking mount was nicknamed 'the fluffy elk' because of the long-haired wind jammers!

"During almost six months of working in the Arctic, I never had one single problem with the B&K mics - they performed without a fault and were reliable partners in even the hardest conditions. They are very remarkable tools for a recording engineer, and should certainly not be left at home when working in demanding circumstances like the North Pole."

Florian will spend this year working on his Arctic material in post-production. On completion in early 1996, the many different television programmes that make up the project are expected to be sold to broadcast networks all over the world.



The Arctic Northeast remained an unexplored region until 120 years ago. While searching for a north-eastern sea route to Asia, the so-called "white route" to India, the Austro-Hungarian polar expedition of 1872 discovered a group of islands in the northern Barents Sea and named it for the Emperor Franz Joseph.

The "Diamonds of the Arctic" have been sealed off for many years, access forbidden by the Soviet authorities. With the break-up of the USSR, Franz Joseph Land has been rediscovered - fittingly, by the compatriots of the original explorers, in the shape of expeditions from the Austrian national broadcast corporation, ORF.

Under the leadership of Helmut Voitl (director) and Elisabeth Guggenberger (editor), the ORF project has made three expeditions to the Arctic to make a series of programmes about this little-known territory. Their premise is that, because of its strategic location, the Arctic Northeast will play an increasingly important role as a monitor of global environmental changes which can be detected earlier and quicker here than in other regions. The politically sensitive issue of atomic waste dumping in the Polar Sea is also under the ORF microscope, as is the local flora and fauna of the area - walruses and seals, polar bears, and a rich variety of bird and marine life.

The huge undertaking included the construction of a 1:1 scale replica of the "Tegetthoff", the ship that brought the first explorers. One of the programmes re-enacts the expedition, complete with actors in period costume. The 40-strong ORF team of scientists and programme-makers lived and worked for 3 months at a time in the hostile Arctic environment, transporting a 100-ton set to the filming location just 600km south of the North Pole.

*Despite its many outstanding features, a B&K microphone is not recommended for use in combat with a polar bear*

