

Requies-Cat in Pace

The crew of the AES weather station at Cape St. James, Queen Charlotte Islands, B.C. live in relative isolation. One of the consequences of this remoteness was the development of a very special relationship with the station cat.

In a letter dated April 16, 1987, Mr. B. Jensen, A/superintendent, Station Operations, Pacific region, asked Zephyr to print "in your excellent publication" an obituary that began — "It is with deep regret that we announce the passing of Mr. B. Lackie, of Cape St. James, Q.C.I. Mr. Lackie died on March 10 after a short illness. He was 42*..."

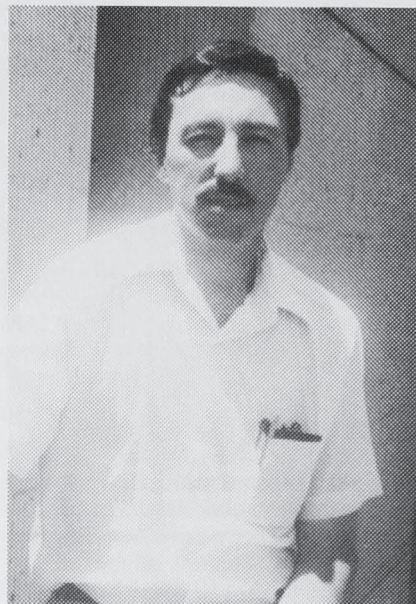
Mr. Jensen's letter was shortly followed by a letter (dated May 1) from James Derham-Reid, OIC, Cape St. James, insisting that a more protracted obituary be printed, as the brevity of Mr. Jensen's notice could not make sense to the many Zephyr readers — and Mr. Derham-Reid himself generously contributed the following heartfelt biography of Mr. B. Lackie.

"In the beginning, of course, he was just plain Blackie the Cat, son of Coco and Caliban, and the only one of his litter to remain at the Cape when his brothers and sisters went off to homes in Sandspit. For several years he lived a simple cat's life — much as cats live everywhere. Then "Crazy Bob", a Cape regular, came in to put in his annual tour of duty, and the world — Blackie's world — changed for ever."



"Crazy Bob" spent his idle hours going through the magazines and tearing out those little mail-in cards — you know the sort I mean: "Be a Locksmith," "Build Better Biceps," "Retro-Fit your home with Solar Technology," etc. Bob filled out all these cards in the name of Mr. B. Lackie, Cape St. James — and in no time at all, Mr. Lackie was on everyone's junk mail lists. Each time the helicopter came with food and mail, Mr. Lackie got most of the incoming letters, magazines and circulars. He had his own mailing stickers from the T.B. Vets. In response to a few dollars mailed-in, he became a 'sustaining member' of various political party organizations, and his plasticized membership cards went up on the bulletin board. Mr. Lackie had subscriptions to various magazines, among them Popular Science, and just before his death he started receiving copies of the Plain Truth. Was it due to a presentiment on his part? We shall never know.

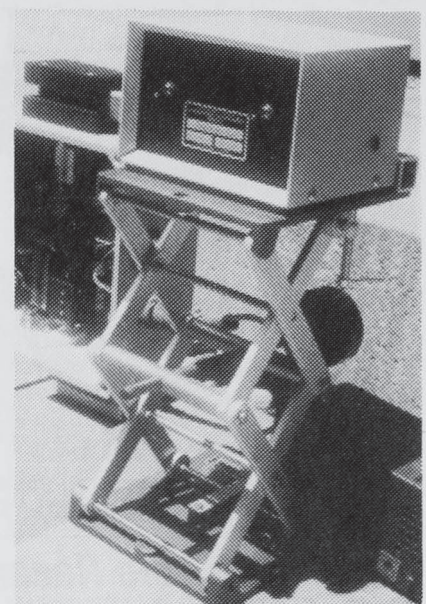
EMPLOYEE EQUIPMENT



Bob Wilson

Data collected during the winter about the depth of snow lying on the ground is valuable to both climatology and hydrometeorology. So meteorological and climatological stations in Canada measure and record the depth of snow on the ground daily throughout winter. But this measuring is done manually with a snow ruler. With the rise of automated (unmanned) stations, snow depth data will be lost unless snow depth measurement is automated too. In AES, the development of a reliable automatic snow-height gauge was assigned to a four man team — Barry Goodison and John Metcalfe of the Hydrometeorology Division, and Ken Wu and Bob Wilson of the Measurement Technology Section. Zephyr collected the following information from Bob Wilson.

The snow-height is based on an acoustic echo technique. An electrostatic transducer (microphone) produces a sound wave which is sent down to the ground — in this case, to snow lying on the ground. When the sound wave hits the snow, it reflects back to the transducer as an echo — and the measurement of elapsed time from the transmission of the sound wave to the reception of its echo determines the height of snow above the ground. Of course, a fixed distance from the transducer to the actual (snow-free) ground is programmed in advance to deduce snow-depth. The loudspeaker, transducer, and electronic circuitry are housed in a metal box which is clamped to a sturdy metal arm extended horizontally outward



Remote snow-height sensor

from a vertical pole rooted solidly in the ground — and the whole is set up in a judiciously selected spot, usually somewhere in an open field.

Bob Wilson and his three colleagues worked from an ultrasonic ranging kit commercially produced by the Polaroid Corporation. The kit represented potentially specific uses only. Bob had to adapt the kit's components into the model that became the snow-height gauge. Development of the gauge's acoustic technique was established during the winter of 1982-83. Two additional units were deployed for testing during the winter of 1983-84. There were bugs to be worked out. The speed of sound varies according to air temperature and there was a 2cm discrepancy between the gauge's measurements and the snow ruler's measurements. But these problems have all been solved and the snow-height gauge is now accurate and effective.

Bob Wilson is a 20 year veteran of AES. He served as an upper air technician in the Arctic for four years, then served four more years on the B.C. Coast weather ship *Quadra*. He also worked in Africa on the GATE (Garp Atlantic Tropical Experiment) project. Bob then took education leave for a two-year electronic engineering technology course at Fanshawe College, London, working during the summer in Downsview in the Technology Support Division. The following summer he made it permanent and has since worked on the snow-height sensor and other instruments.

Mr. Lackie died in March after a few days of illness. John How buried him near the Operations Building, and has ordered-in a stone, which I shall see to the placement of. The new cat — NOT a replacement; nothing — after all — could replace Mr. Lackie — is merely a cat, nothing more.

"Ave atque vale Mr. Lackie...our rocky world is the poorer for your passing."

*The age of Mr. B. Lackie at death — 42 years old — as informed by Mr. Jensen is of course human-scale adjusted.