Skiers win at World Cup meets

Canadian athletes placed first in World Cup ski competitions held recently in Kitzbuehel, Austria and Thunder Bay, Ontario.

In Kitzbuehel, Todd Brooker of Paris, Ontario won his first World Cup downhill ski event on the Hahnenkamm course. Brooker, 23, covered the 3 510-metre course in two minutes 1.96 seconds beating Urs Raeber of Switzerland by .23 seconds. Ken Read of Calgary finished third in a time of 2:02.47 while Steve Podborski of Toronto finished ninth in 2:03.20. Podborski had placed second to Switzerland's Bruno Kernen in another race held at Kitzbuehel a few days earlier.

Canadian Ski Association

Todd Brooker

Read's finish moved him into fifth place in the World Cup downhill standings with 68 points.

In Thunder Bay, ski jumper Horst Bulau of Ottawa placed first and second in the 70- and 90-metre competitions. Bulau was beaten in the 90-metre jump by Finland's Matti Nykanen.

In recording his seventh World Cup victory, Bulau jumped 91.5 and 89.9 metres on the 70-metre hill for a total of 263.7 points. In the 90-metre competition, the Canadian jumper registered jumps of 113.5 metres and 117.5 metres totalling 257.4 points. As a result of his finishes, Bulau earned 45 points capturing third place in the World Cup standings with 105 points.

Steve Collins of Thunder Bay finished in the top ten in both competitions placing tenth in the 70-metre jump and eighth on the 90-metre hill.

Salt squeezed from sea water

A portable device that can take the salt out of the sea water has been created by a British Columbia firm.

A reverse-osmosis machine developed by Seagold Industries Corporation of Burnaby, British Columbia allows fresh water to cross a semi-permeable membrane when pressure is applied on it. The new device uses this principle in a hand-held converter pumped by a 12-volt DC motor.

The system, the company says, is much more efficient than the multi-stage evaporation systems requiring boiling and condensing of water. A large-scale Seagold system powered by a diesel engine can produce 4 500 litres of fresh water while burning 4.5 litres of oil, says the device's designer Bowie Keefer.

A solar-powered version of the system is being tested in Qatar. Seagold is controlled by TDC Technology Development Corporation, which is owned jointly by Teck Corporation and CDC Ventures Incorporated, a division of the Canadian Development Corporation.

Canadian survival suit helps exposure victims

A new cold-weather survival suit that will be a great boon to victims of hypothermia or exposure has been designed by Canadian Richard James, vice-president of J.G. Safety Products of Ottawa.

Looking over the inexpensive American survival suit and mylar safety blankets that he sold in his Ottawa, Cornwall and Brockville, Ontario outlets — equipment that lasted for only one emergency — James decided he could improve upon them.

By combining two commonly used materials, mylar and tyvex, he now has a sturdier, superior product to protect people suffering from exposure and hypothermia.

Hypothermia, the plague of cross-country skiers and people who fall into freezing water, can quickly reduce body temperature to the point of death. A survival suit reacts to body temperature and slowly warms the body back to normal. A zipper is used to regulate the temperature.

Known by the trade name, Armour Cold Weather Survival Suit, it is manufactured in Hamilton, Ontario and sells for about $35.

The bright yellow suit, which is 90 per cent waterproof, is easily recognizable from the air, weighs only eight ounces and can be folded up into a knapsack.

James has also designed a $14 safety blanket from the same material which is especially useful to ambulance attendants and the police who can quickly wrap up an injured person.

To check out the suit, a newspaper reporter from the *Toronto Sun* recently exposed himself to hypothermia by jumping into Lake Ontario in his bathing suit and then warming up in one of the new survival outfits.

"That's not exactly how it's supposed to be used," said James, but according to the freezing reporter, it worked.

Operation restores hearing

A delicate operation, performed for the first time in Canada, restored hearing to a woman who had been deaf for more than two years.

Lucy Philpott, 25, of Fraser Lake, British Columbia, can hear again after the operation, performed by ear specialist Patrick Doyle at St. Paul's Hospital in Vancouver. Although normal hearing will never be restored, a pocket-size device feeds electrical signal directly to her brain allowing her to be in touch with a world from which she had been isolated.

During the operation, doctors threaded a tiny wire through the patient's skull behind her right ear and through her eardrum, looped it around the tiny bones of her middle ear and then inserted it into her cochlea, a snail-shaped organ that, in a normal ear, converts sound waves into electrical signals.

Miss Philpott's cochlea was incurably damaged by a bout of meningitis in 1980, but the wire brings in electrical signals that travel up her auditory nerve to her brain. The "sounds" she hears are alien, unlike what she can remember, but they are sounds, and with training she will learn to recognize many of them and, with the help of lip-reading, to understand speech.

The electrical signals are generated by a small transmitter hooked up to a microphone.

Dr. Doyle, who is collaborating with a Los Angeles group led by Dr. William House, inventor of the method, said there was funding for four such operations a year in British Columbia.