

## Industrial Research Assistance Program (IRAP)

### Region:

**Newfoundland and Ontario  
St. John's and Newmarket**

### Lotek Wireless Inc.



Lotek Wireless Inc.

### Collaring Innovation

Tracking animals was probably one of the earliest skills developed by human beings. But whereas we have traditionally cultivated this skill simply for hunting, today we want to achieve a much deeper understanding of the lives of animals and their environments. Collecting this kind of detailed information poses a far more sophisticated challenge than any hunter has ever faced.

It is a challenge that is being met by Lotek Wireless Inc., a firm that is setting new standards for the technology that is now used to track the activities of animals around the world. Now operating in St. John's, Newfoundland, and Newmarket, Ontario, the company was founded in 1984 by Jim Lotimer, who had previously headed up a research facility for the Ontario Ministry of Natural Resources. His work there on the electronic monitoring of wildlife, known as biotelemetry, inspired him to find a place in the forefront of this constantly growing field.

Innovation quickly became a defining feature of Lotek, which began to add entirely new dimensions to biotelemetry. In the difficult area of physiological monitoring fish underwater, for example, the company introduced an implantable device for recording and transmitting metabolic data. The software and hardware employed in such devices has been steadily refined through techniques such as digital signal coding, which allows many different devices to employ the same radio frequency.

Lotek's products are being used by fish and wildlife agencies in more than 38 countries, often in collaboration with educational or non-profit organizations dedicated to a specific environmental project. In fact, many of these projects depend upon an accurate analysis of the specific habits of animals, whether they be found on land, under water or in the air.

"The greatest ambassadors for our products are often the scientists and researchers who use them," says Keith Stoodley,

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**For information on IRAP, or to reach an Industrial Technology Advisor (ITA), please contact the IRAP regional office nearest to you. In Ontario call (416) 973-4484.**

### **Web site:**

<http://www.nrc-cnrc.gc.ca/irap-pari>

Lotek's Director of Marketing and Sales. He adds that no less than 12-15 per cent of revenues are invested in research and development, ensuring that the company continues to define the cutting edge of biotelemetry.

"This allows us to keep meeting our scientific partners' needs for increasingly unobtrusive ways to follow smaller and smaller creatures deeper and deeper into the wild," he says. "Our success can be attributed to a combination of technical competency, R&D spending, and a passion that drives our employees to provide sustainable solutions to significant global problems."

Stoodley also expresses his appreciation for the support of the Industrial Research Assistance Program (IRAP). This federal initiative works closely with all kinds of small and medium-sized enterprises, helping them grow their businesses, increase their competitiveness, and enhance their impact in the marketplace.

IRAP has provided financing and business consulting services to Lotek at several key stages during the company's history, those critical points when research goals had to be met before they could begin to pay for themselves. This often occurred when the company was fulfilling highly specialized requests for particular clients, only later finding a broader market for the resulting products.

These efforts have been recognized by a number of awards over the years, including the 2002 Canada Export Award for Innovation and Technology, presented by the federal Department of Foreign Affairs and International Trade. IRAP is pleased to add to that list by naming Lotek as an Innovation Leader. It is a designation that aptly reflects the philosophy of the company's founder.

"We've been able to contribute volumes of new knowledge to the science of a multitude of species occupying space on the land, and in our rivers, seas and in our oceans," says Jim Lotimer. "At the same time, we're helping governments, businesses, and public utilities to better manage our resources and co-exist with nature. It's very rewarding work, with constant new incentives to improve upon what we do." ■

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