



PETER VENOUTSOS, NATIONAL POST

Above, a diver explores the wreck of the Robert Gaskin, near Brockville. A marine research agency is developing a sonar device to distinguish a recreational diver from someone who may pose a terrorist threat.

# Undersea divers targeted as security focus shifts

## Human-detecting sonar follows warnings al-Qaeda weighing underwater attacks

BY JAMES GORDON

The marine research agency of the Canadian Forces is looking for new ways to protect Canada's ports from terrorist threats posed by divers, a top government scientist says.

The policy shift at Defence Research and Development Canada's Halifax lab means researchers who normally work on mine detection and countermeasures will begin adapting systems to find undersea attackers.

"There's been a shift of focus from what the navy likes to call 'expeditionary forces' when you're going overseas, to more of a homeland defence philosophy," scientist David Hopkin said in an interview with the *Citizen*. "We're ramping up that side of the program right now."

The project will begin its new mandate in April, he said.

According to Mr. Hopkin, the group will focus on developing high frequency sonar to identify moving targets.

"Is it a fish swimming randomly, is it a recreational diver just looking for things on the bottom, or is it a real threat swimming directly to you with the intent of doing harm?" he said.

"That's where you take existing commercial technology and augment

it with all kinds of sophisticated processing."

He foresees a multilayered sonar system in which targets identified as a potential threat by basic, shore-based sonar could be further examined by boat with short-range, high-resolution sonar or, weather permitting, an underwater camera.

A *New York Times* report revealed the U.S. Coast Guard plans to deploy similar, human-detecting sonar systems following a series of warnings that al-Qaeda agents have considered underwater attacks.

American scientists are also developing a series of underwater weapons.

After issuing a verbal warning through underwater speakers, officers would have the option of firing high-pressure pulses of air or water to cause discomfort and force divers to surface, the newspaper reported.

Mr. Hopkin said his agency isn't currently considering similar weapons, but he said he was interested in the idea of an underwater speaker.

Other options Canada could review are nets that prevent divers from getting too close to vulnerable ships and biodegradable ink bombs that could disorient an attacker, he said.

Mr. Hopkin also pointed to Canada's recently acquired remote mine-hunting system as a potential defence for ports in this country.

The unmanned mini-submarine transmits images from the sea bottom, which are then analysed for mine-shaped objects.