

DND blasts dolphins

by Hal Whitehead

Hal Whitehead has studied the whales and dolphins off eastern Canada since 1975. In the last eight years, he has led six studies of the northern bottlenose dolphins and sperm whales on the edge of the Scotian Shelf. An associate professor in the biology department of Dalhousie University, he is also a member of the Cetacean Specialists Group of the Species Survival Commission of the International Union for the Conservation of Nature, and has given evidence during legal action which resulted in the relocation of U.S. navy ship shock trials.

In November, the Department of National Defence (DND) is planning to detonate three large explosions beside HMCS Halifax in waters south of Nova Scotia in order to "ensure the safety of the crew and ships' equipment."

In its public announcement of the explosions, DND maintains that "the site selection and mitigation plan were developed in accordance with Environmental Assessment and Review Process Guidelines Order and in public consultation."

As a scientist who studies whales and dolphins in the vicinity of the proposed explosions, I was one of those consulted. I remain concerned about their effects.

DND has misrepresented both the risk of environmental harm that the explosions may cause, and the necessity of carrying out the tests.

U.S. Navy tests, smaller than that planned for Nova Scotia waters, have killed marine mammals and fish.

The ranges at which animals are harmed by such explosions are not well known, but fish, whales and dolphins are probably killed outright at a few hundred metres, injured (perhaps fatally) at several kilometres, and may be disturbed at ranges of thousands of kilometres.

During November, the time of the proposed test, satellite imagery shows the waters around the chosen site to be filled with life — at this time of the year it is one of the most productive parts of the North Atlantic. The area is a focus of tuna fishing in November, and, although no systematic surveys have ever been carried out, whales and dolphins are known to use the region. The consultants whom DND hired to evaluate

the risks of the trials for marine mammals conclude that "one would predict relatively high densities of marine mammals and other high-order consumers to be present during the autumn/early winter season. Especially considering the lack of systematic marine mammal surveys in the area of concern, these data are not reassuring."

Despite this evidence, DND maintains that "potentially adverse environmental effects are insignificant or mitigable" and that the area is "of very low productivity." The satellite productivity data is dismissed as unreliable, even though it is the

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foundation of several major oceanographic research programs in Canada and the U.S.

DND rejects its own consultants' report on the basis that the consultants were writing about a different site. The consultants' report clearly states that a pre-existing constraint of their work was that "the site of the trial had been decided." It is typical of the methods of the proponents of this trial that they commissioned a report based on a particular site, then moved the site, declared the report invalid, but did not commission a new or revised report. In my professional opinion, the conclusions of

the report would be virtually unchanged if the consultants had been given the location of the new site (140 kilometres distant).

Even the best efforts of the navy cannot completely mitigate the potential risks of the explosions — neither trained eyes nor sophisticated equipment can detect a silent tuna or sperm whale underwater at a range of a few kilometres.

The tests are a threat to marine life.

However, DND argues the tests are essential for the safety of the sailors aboard the new frigates. Why, then, has HMCS Halifax been sailing the seas (including those off Bosnia for three years) without such tests?

And why does the navy intend to cancel the tests if they cannot carry them out during the planned 13-day "window" this November? Is the navy completely callous about the safety of its sailors, or are the tests not quite so essential for their safety?

During dealings with DND over the past few months, I have received the impression that some time ago an order was given to carry out the test, for no particularly logical reason.

Many able men and women are now working hard to make sure the order is obeyed as efficiently as possible. They struggle with logistical problems, try to answer environmental concerns, and may face danger.

In a few weeks, if all goes according to plan, the test will be over. Sailors may be injured; rare beaked whales may begin to die slow, painful deaths; there may be fewer of the very few tuna that mean so much to our fishermen; but the order will have been obeyed.

Why shock trials

by Wayne Groszko

Between November 8 and 21, 1994, the Department of National Defence (DND) plans to detonate three large explosions in the waters off of Nova Scotia. The "Shock Trial Environmental Protection Plan", published by the DND, explains why they believe the explosions are necessary, and how they hope to reduce the environmental effects.

The explosions are intended to test a warship, HMCS Halifax, one of twelve ships in the Canadian Patrol Frigate (CPF) class. The test is supposed to determine whether the ship will "maintain essential combat capability" under conditions of a near-miss attack.

To simulate this condition, a charge containing 544 kg of HBX-1 explosive will be detonated at a short distance from the ship, and at a depth of 97 metres. Equipment on HMCS Halifax will record the effects of the shock. The ship will return to Halifax Harbour for inspection, then go out twice more for similar explosions, but the third one will be much larger (4536 kg HBX-1).

The DND believes that large explosions are necessary to induce a realistic shock while allowing the explosions to be far enough away from the ship so the shock wave will be flat and not bend the ship. To visualize the magnitude of the third explosion, it is expected to cause a plume of water in the air over 100 metres high.

According to the DND, the most important environmental concern stemming from the explosions is the effect of the noise and shock wave on marine life. They believe this effect has been reduced by choosing a site which they claim has "low productivity", and therefore is not likely to contain marine animals such as dolphins, beaked whales, sperm whales, tuna, and seabirds.

In addition, the DND states that

it will monitor an area around the explosion site before and after the explosion. The monitoring described includes surface monitoring by people on ships with binoculars, as well as from the air, and underwater monitoring by listening for whale noises. The DND claims that these methods are capable of detecting marine animals in the vicinity of the explosion, and that the testing will be "delayed" if any are detected.

Numerous concerns were expressed to the DND by the World Wildlife Fund, the Canadian Nature Federation, and Hal Whitehead, an associate professor in Dalhousie's biology department. The concerns include the lack of knowledge of the distance at which the hearing of marine mammals will be deafened, the inability of the monitoring methods to find marine animals, and the lack of real public consultation on this issue. In addition, there is satellite data which contradicts the claim that the area has "low productivity", and there have been no comprehensive surveys to test the DND's claim that very few animals are likely to be in the area. Opinions were unanimous in stating that the status of the project should be changed from Code 3 (go ahead), to Code 4 (initial environmental assessment required), because of the lack of information.

From reading the Environmental Protection Plan, one would be concerned that the monitoring is to be carried out almost entirely by the DND itself, and not a single independent observer (i.e.: outside of the federal government payroll) is to monitor the event. The number of loopholes in the Plan is also troubling, such as the fact that it states that tests will be "delayed", but doesn't say for how long. Furthermore, nowhere in the document does it state that the tests will be stopped if the first one is shown to kill marine animals.

POINTLESS PONDERABLES

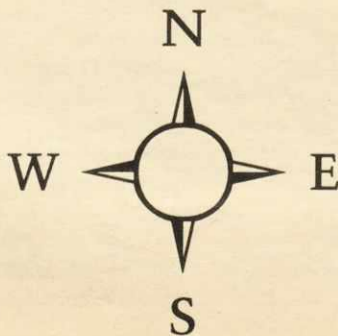
Last week's answer:

Congratulations go out to Chris Ling this week, who was the first to send in his correct answer of 23. Once again, the minimum number of people to have at a party in order for there to be even odds of having two people with the same birthday (excluding year) is 23.

This week's question:

You're the captain of a fishing boat (not cod, we hope), and you're quickly getting lost since your navigator, Vinnie, got sick and passed out after eating some raw fish. You'll be safe as long as you don't enter the dreaded Nova Scotia triangle (like the Bermuda triangle, but colder). Unbeknownst to you, however, you're already entering it! Here's the question: How far can you keep entering the Nova Scotia triangle? HINT: the answer is not a measure of time, but distance. It's a tricky question.

Drop your answers off at the Gazette office in room #312 in the SUB, or email them to gazette@ac.dal.ca. The first person to send in the correct answer gets their name published in the paper, so get those brains in gear!



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