

Plans for nuclear subs

Canadian subs could become floating Chernobyls

by James Young

While the federal government says nuclear-powered submarines are worry-free, a recent independent report concludes several hundred Canadians could die of cancer if a reactor accident happened in port.

The report, by University of California biology professor Jackson Davis, says up to 422 people would develop fatal cancers after an accident in the harbour at Esquimalt, near Victoria, B.C.

The severity of the accident would depend upon wind conditions and would expose the population to radiation levels 500 to 10,000 times the limit established by the U.S. Nuclear Regulatory Commission. An additional 422 people could also become victims of severe genetic defects.

The report, commissioned by four Canadian peace groups, says these figures are "conservative," and exclude both immediate fatalities and those resulting from exposures of longer than four hours.

Casualties would be centered within five kilometers of the accident. For this reason, Davis recommends the federal government rehearse evacuation procedures for this zone, if it intends to go ahead with the purchase of 10 to 12 nuclear-powered subs.

The report also cites one accident with a British Trafalgar class submarine—one of the designs Canada is considering—which leaked 120 liters of contaminated water into the Irish Sea.

In an article written by journalist David Kaplan for the Center for Investigative Reporting in San Francisco, critics say that one of Canada's nuclear-powered subs could turn into a floating Chernobyl or Three Mile Island.

A 1986 survey by the center revealed 141 accidents on U.S. nuclear-powered ships, 46 of which involved the nuclear power plants. These accidents included flooding, fires, mechanical breakdowns, sinkings, and collisions with other warships, tankers, and "at least one whale."

This provides a sharp contrast to the defence white paper, which says "after 34 years and more than 3,000 reactor years of operating experience, the U.S. navy has had no nuclear accidents."

Although the U.S. navy denies the 1963 sinking of the U.S.S. Thresher, a nuclear-powered sub, caused by a reactor accident, other authoritative sources, including Admiral Ralph K. James, dispute this.

They say the disaster was due to the failure of a pipe which sent a stream of pressurized seawater onto the nuclear control board, causing the reactor to shut down, the sub to sink, and the crew members to die.

Other U.S. naval accidents, involving nuclear-powered vessels have included:

- the U.S.S. Scorpion, a sub which sank in 1968;
- the U.S.S. Woodrow Wilson, a sub which experienced a potentially disastrous loss of pressure in the reactor's cooling system in 1971;
- the U.S.S. Proteus, a sub-tender which discharged radioactive coolant into Apra Harbour, Guam, in 1975, giving radiation levels 50 times higher than the permitted dose.

As with civilian power plants, the Soviet record is even worse, with the sinking of at least four subs.

Both the CIA and the U.S. Navy report that the world's first nuclear meltdown at sea occurred aboard the Soviet icebreaker Lenin in 1966 or 1967. A second meltdown is rumoured to have happened with a nuclear-powered sub in the Barents Sea in the late 1970s.

The most recent major accident happened in October 1986, when a Soviet Yankee-II class sub, carrying up to 16 nuclear missiles, sank in the Atlantic after an explosion and fire.

At a recent briefing for reporters, senior Canadian military officials said there have been only four nuclear accidents aboard the world's nuclear-powered submarines.

Until 1986, when Beatty became defence minister, the navy was expecting a fleet of conventionally powered subs.

But now, some Ottawa observers think Beatty is staking his political career on the nuclear version, in a move calculated to alleviate public fears about Arctic sovereignty, while showing Conservative leadership on defence issues.

Currently the minister is on a submarine shopping spree, comparing British Trafalgar class vessels with the french Rubis design.

But since the final contracts will not be signed until late 1989-90, and the Conservatives must go to the polls by September 1989, the Canadian public could still cancel Beatty's line of credit.

As with cruise missile testing, which the government sup-

spring, worried about the fleet's deluxe price as the national debt slides toward \$300 billion, with yearly interest payments of about \$1000 for every Canadian.

Costs also concern Doug Ross, a political scientist at the University of British Columbia and a long time advocate of increasing Canada's defence budget to secure coastal waters and Canadian airspace.

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"If we do go down the route of buying those subs, we are going to postpone buying other equipment which is needed urgently," he says.

Although Ross believes the armed forces have suffered 20 years of budgetary neglect, he also believes the government is doing the country a disservice by pursuing the plan without demonstrated support from the public and the opposition parties.

With nuclear accidents, the Non-Proliferation Treaty, destabilizing strategies and back-breaking costs, Canadians may wonder how the sub fleet got up enough momentum to sail through the department of national defence in the first place.

ports, and declaring the country a nuclear weapons free zone, which it opposes, the subs' purchase draws a clear line between the government on the one hand and the Liberals and the NDP on the other.

While the next election would appear to be dominated by free trade and questions of economic and cultural survival, there is a good case to be made that the defence policy of a nation sandwiched between the superpowers could affect survival itself. Polls conducted soon after the subs were announced showed about 50 per cent of Canadians supporting the purchase, but it seems possible that a better educated public will torpedo the fleet.

fuelling, refitting, communication and training. Corbett put the final bill at about \$16 billion.

Thus, according to many observers, the government is pursuing a Rolls Royce option, when a Volkswagen would do the job.

"We don't feel that the nuclear powered submarines are vital for the naval missions Canada performs," says Dan Hayward, a research assistant at Ottawa's Center for Arms Control and Disarmament, a think-tank which sees strong armed forces and arms control as complementary.

Noting that the subs' primary role would be in the Atlantic and Pacific, Hayward would replace them with a combination of surface ships, diesel electric subs, aircraft and sonar devices in Arctic channels, at about one half DND's estimated cost.

Within the government itself, there is opposition to the subs from the federal treasury board, which reportedly delayed the white paper this

