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"Just Dummies": Cruise Missile Testing in Canada. By John M. Clearwater. (Calgary: University of Calgary Press, 2006. 270 p., bibl., notes, index ISBN 1-55238-211-7 \$34.95)

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moreover characterized by extensive subcontracting and by the rise of a host of ancillary businesses that provided specialized equipment and tools or services such as well logging or warehousing of spare parts. Finally, we learn much about the structure of the labor forces that built, used, and maintained the drilling rigs, the range of specialties within the work crews, as well as their wages, hours, and working conditions. All in all, this makes for a unique picture of how capital, business, labor, and technology came together and interacted in the Alberta oil patch over nearly a century.

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"Just Dummies": Cruise Missile Testing in Canada. By John M. Clearwater. (Calgary: University of Calgary Press, 2006. 270 p., bibl., notes, index ISBN 1-55238-211-7 \$34.95)

John Murray Clearwater calls this work the third volume in his "nuclear weapons in Canada trilogy that began with the 1988 book *Canadian Nuclear Weapons* and was followed in 2000 by *U.S. Nuclear Weapons in Canada*" (p.1). That is a bit of a misnomer inasmuch as the two first volumes dealt with the history of actual nuclear weapons that either were located in Canada, or could be used by the Canadian military, or both in the case of the nuclear warheads within Bomarc surface-to-air missiles and Genie air-to-air rockets that were available to the Canadian air force for North American air defence. The cruise missiles that are the subject of this third book were never deployed to Canada. They were tested twenty-three times in Canadian airspace, between 1984 and 1994. And they never were armed, with either nuclear or conventional weapons. They were "just dummies" as Gilles Lamontagne, the minister of national defence, put it in 1982.

Air-launched cruise missiles are released from bombers. They carry small jet engines and wings that allow them to fly like airplanes. During flight their on-board guidance system periodically compares surface characteristics stored in their on-board computers and corrects the track. This means they are highly accurate. The U.S. wanted to test "the cruise" over Canada because, "unique among Western allies, including the United States, Canada has the combination of space, terrain and weather and test facilities suitable for operational testing of the air-launched cruise missile over representative terrain and realistic route length."

Clearwater's first two volumes were long on technical detail and citations from primary documents and somewhat short on assessment.

Clearwater takes a different approach in "Just Dummies" providing plenty of opinion and analysis. Unfortunately, he goes far too often into polemical overdrive, starting right at the beginning where he writes that cruise missiles testing demonstrates that "the structure of politics and the military in Canada is set up to serve the military requirements of the United States" (p.1). That's pretty facile, and it serves as substitute for a more sophisticated and thorough explanation of why the Trudeau and Mulroney governments allowed the testing to proceed. The Trudeau government in particular deserves better attention, and especially the prime minister himself, who personally came out strongly in favor of testing. Clearwater returns to this line of argumentation in his conclusion. Canadian national sovereignty simply is a "façade" when it comes to defence, he writes (p.199).

Clearwater chronicles the powerful public opposition in Canada to testing, almost from the moment when word of the U.S. request was leaked to press in 1982. There were "Refuse the Cruise" protests across the country and public opinion polls showed majorities against. Letters poured into the prime minister's office. There were vigils across the country and a student went to the Public Archives in Ottawa and splashed red ink across the copy of the *Constitution Act*, 1982 that the queen had signed only months before. Chapter Three of the book provides a fascinating, if somewhat chilling account of the October 1982 bombing of the Entobicoke, Ont. facility of Litton Systems Canada Ltd. by terrorists opposed to the cruise. The company made guidance systems for the missile.

One is left with the sad conclusion that just as U.S. President Ronald Reagan was standing the West up for what would turn out to be its ultimate victory in the Cold War a few years later, some Canadians flinched. As Pierre Trudeau himself put it in his most famous utterance of the episode, his May 1983 open letter to Canadians, "It is hardly fair to rely on the Americans to protect the West but to refuse to lend them a hand when the going gets rough...In that sense the anti-Americanism of some Canadians verges on hypocrisy. They're eager to take refuge under the American umbrella but don't want to help build it."

That is emphatically not a view Clearwater shares, of course. So it is too bad that "Just Dummies" does not do the arguments against the airlaunched cruise, and hence against cruise missile testing in Canada full justice. To be sure, Clearwater, like other chroniclers of the period, easily punctures Trudeau's argument that cruise testing was a formal NATO obligation. Clearwater briefly discusses the counting problems that the cruise could pose for arms control, and also very briefly argues that the "stealthiness" of the advanced air-launched cruise missile, which began

to be tested in Canada in 1989 was problematic. Strikingly, he does not turn to an elaboration of the most important strategic argument at his disposal. It is not, as some opponents of testing argued at the time, that the cruise could be used as "splendid first-strike weapons" to disarm the Soviets and so were "destabilizing". They could only be used that way if there was no air defence and the Soviets had an extensive and, it appeared at the time, sophisticated air defence system. Rather, as peace group types and other opponents also, and in this case correctly argued, the cruise was part and parcel of the growing U.S. emphasis under both the Carter and Reagan administrations on basing deterrent strategy on sophisticated nuclear options and being able to try to fight a protracted, controlled nuclear war. It would be after a strike by U.S. ballistic missiles that had degraded Soviet command and control facilities and air defence capabilities that the air-launched cruise missiles would come into play. Because of their accuracy they would be directed towards highly specific target sets. Being able to fight a protracted, controlled nuclear war was at variance with what Canadians tended to want in nuclear strategy. This included that Trudeau government itself, that had prized "stable, mutual deterrence."

If shaky on analysis, "Just Dummies" still shares the strengths of the two earlier volumes. Clearwater has done sweeping archival work and provides powerfully detailed descriptions of the tests over the ten-year period.

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## Medicine / Médecine

*Clio in the Clinic: History in Medical Practice.* Edited by Jacalyn **Duffin.** (Toronto. University of Toronto Press, 2005. xxii + 334 p., ill. ISBN 0-8020-3854-9 hc. \$65 0-8020-3798-4 pb. 35\$)

This is a set of invited papers on medical history; the authors are medically qualified, mainly though not entirely practising medicine, and professing its history. The authors are largely from the United States, but include British, Canadian, French and Mexican. The papers range from two outstanding, several excellent, and many competent to several deficient in one or more aspects. My sole qualification to write this essay is that, a pathologist by trade, I taught a course in medical history to