

the product of an international symposium jointly convened by the Stockholm International Peace Research Institute (SIPRI) and the Canadian Institute for International Peace and Security (CIIPS) in October 1986 at Montebello, Quebec. Among the twenty-six contributors are prominent seismologists, senior officials of both the Los Alamos and Lawrence Livermore weapon laboratories, and former chief US arms negotiator Paul Warnke.

The declared aim of this publication is "to give an analytical review of the complex technical and political issues involved in a possible cessation or limitation of these tests, and to present a wide range of authoritative opinions on this subject." The book succeeds well in presenting full discussions on such issues as the role of nuclear explosive testing in nuclear weapon modernization and weapons reliability, nuclear proliferation, recent breakthroughs in explosive tests verification and both the sorry history of CTB negotiations and the current prospects for such an agreement.

While it is not the editors' intention to state conclusions directly from the varied contributions, a number of clear patterns emerge. On the verification issue — which has generally been the primary line of defence taken by CTB opponents — scientists have recently developed numerous discriminants based on the relative amounts of energy in different types of sound waves produced by earthquakes and nuclear explosions, as well as the frequencies of the waves produced. As a result, nuclear explosions can now be confidently detected — by means of seismic stations equipped with high-frequency seismometers — at very low explosive yields. The remaining dispute has one group of scientists confident of verification at 1-kiloton yields while others believe that detection is only certain in the 5- to 10-kiloton range.

The difference is significant, as nuclear weapons development would be much more severely constrained at the lower 1-kiloton threshold than at the higher range. Many of the contributors — including the editors — may indeed be overselling a CTB as a protection against nuclear weapons modernization. A CTB would not put an absolute end to the qualitative development of the nuclear arms buildup. Curtailing the development of nuclear warheads would not inhibit the development of new and more threatening delivery systems for existing weapons. A flight-test ban would be necessary in order to halt advances in reentry vehicle technology,

which promises significant — and destabilizing — advances in missile accuracy.

At the same time it would be wrong to dismiss the importance of a CTB on constraining nuclear weapons modernization and war-fighting strategies. The United States, for example, is investigating a directed electromagnetic pulse (EMP) warhead that could disable Soviet command, control and communications systems during a nuclear conflict. Warhead testing is also used to develop warheads with varying combinations of blast and radiation effects — as in the neutron bomb — and to improve yield-to-weight ratios. Pursuit of these new directions in nuclear weaponry, far from enhancing security deterrence, is more likely to erode nuclear stability by fostering the illusion that a nuclear war could be fought, controlled and "won." Similarly, a CTB would pose enormous obstacles to Star Wars.

The United States, of course, remains a staunch opponent of a CTB. In one of the book's most interesting chapters, Carl Jacobsen (formerly of SIPRI and now at CIIPS and Carleton University) argues that the current disagreements between the US and the USSR over a test ban reflect the difference between the Soviets' current acceptance of the deterrent doctrine of mutually assured destruction (MAD) and US reliance on counterforce doctrines which stress the military utility of nuclear weapons.

As regards the prospects for a CTB, the book is not overly optimistic. A former US Defense Department official is quoted as saying: "I'm confident that there won't be a halt to testing as long as Ronald Reagan is President," but adding, "That is not to say that a future administration won't see things differently." The editors themselves, recognizing the obstacles, cautiously endorse a very-low-threshold test ban (VLTTB) — that is, as agreement to conduct a very limited number of tests with a yield higher than 1-kiloton but not exceeding 5-kilotons. However, they argue that "any partial arrangement should be seen as transitional and contain an explicit, unequivocal commitment to achieving a complete prohibition of tests by all states."

Sound advice; the editors deserve our appreciation for a most valuable collection. Read — not buy — this book!

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## Over there

by John Gellner

*The Half-Million: The Canadians in Britain, 1939-1946* by C.P. Stacey and Barbara M. Wilson. Toronto: University of Toronto Press, 1987, 198 pages, \$24.95.

There are other aspects to a war than just the politics that bring it about and then put an end to it, and the military operations in between. This is particularly so in the case of a country such as Canada which, for one-and-three-quarter centuries now, has been engaged only in *foreign* wars. This alone brings in special problems of motivation and adjustment.

This was certainly so in the case of the half-million Canadians, close to 10 percent of the then total population of the country, and virtually a whole generation of Canadian males (there were service women too, but their numbers were comparatively small) who served overseas in the Second World War. C.P. Stacey, author among other books of the *Official History of the Canadian Army in the Second World War*, and Barbara Wilson, an archivist at the National Archives of Canada, tackle this subject in this remarkable volume which presents the human side of the direct Canadian involvement in the war. They do it with deep understanding, thoroughly as behooves professional historians, but in an engaging and readable manner.

The main problem for the young Canadians who came to be stationed in Britain was to fit into a new environment, and to be accepted by the local people. It was greatest for the Canadian Army men and women, 370,000 all told, a good many of whom were based in Britain for as long as three-and-a-half years. The 1st Canadian Infantry Division began to deploy there in mid-December 1939, and got into battle for the first time in Sicily in July 1943. The beginnings were the worst. The Canadians had trouble adjusting to local customs, which some of them found outright repugnant. The welcome they sometimes got was frigid, to say the least. They themselves were often bored, what with training exercises going on one after the other and hardly ever any excitement. No wonder then that they tended toward making too much use of the unaccustomed (to them — there was still partial prohibition in Canada) virtually unrestricted access to alcoholic beverages