

itself moving to this step not immediately but following ratification of the threshold test ban treaty and the peaceful nuclear explosions treaty, after a brief period of observation of the effectiveness of the verification provisions agreed upon for these treaties.

I would like to repeat that. The U.S.A. sees itself moving to the next step not immediately following the ratification of the TTBT and the PNET but after a brief period of observation of the effectiveness of the verification provisions agreed upon for these treaties.

One very important point I want to emphasize here in the House is that in a joint communiqué issued after the Moscow meeting between Secretary of State Baker and Foreign Affairs Minister Shevardnadze, the United States and the Soviet Union reaffirmed their commitment to the 1987 agreement which set the step by step process in motion.

The prospects for a successfully amending the partial test ban treaty into a comprehensive test ban treaty are virtually nil. At least two of the partial test ban treaty depository states, whose votes are required for the passage of any binding amendment, have already indicated their strong opposition to the proposed amendment. In our search for a comprehensive test ban, let us focus on the ongoing efforts where real prospects for progress exist rather than concentrating our efforts and our hopes on a conference that will not achieve its stated aim.

In conclusion, there is no fast track to disarmament as much as we may wish otherwise. A negotiated step by step approach that has the support of all parties is the only way toward an effective and lasting comprehensive test ban treaty.

[*Translation*]

Mr. Jean-Marc Robitaille (Terrebonne): Mr. Speaker, I rise today to deal with the motion moved by the hon. member for Notre-Dame-de-Grâce (Mr. Allmand) and calling for a comprehensive nuclear test ban which is one of the long-standing objectives of the Canadian policy in the area of arm control and disarmament. There exists already a partial test ban treaty which prohibits testing everywhere except underground. Although Canada has never possessed nor tried to possess nuclear weapons, it has actively participated in the negotiations which resulted in 1963 in the partial test ban treaty of which it remains a faithful supporter. Moreover, Canada is involved in the continuing consultation within the dis-

armament conference aimed at developing a mandate for those who will be responsible eventually to negotiate a nuclear weapon ban treaty. Canada is actively seeking a treaty prohibiting the use of all nuclear weapons, for it feels that a comprehensive test ban could seriously interfere with the development of new and more sophisticated weapons.

• (1450)

A comprehensive nuclear weapon ban treaty, however, could not be achieved simply by signing it. The ability to monitor the true application of such a treaty would go a long way to help negotiations progress in that area, because no nuclear power would seriously consider renouncing its right to test and improve nuclear weapons unless it were fully convinced that the other powers respect a similar commitment. The monitoring of a possible ban on underground nuclear testing will be mostly based on seismic verification techniques which could be used and which would call for more stringent verification measures if there were any doubts as to the respect of the treaty.

Seismology studies the vibrations experienced by the earth's crust as a result of the quakes, both perceptible and imperceptible, which are felt in a great many parts of the world. When a seismic phenomenon occurs, shock waves spread through the ground. These seismic waves can be detected and analysed by apparatus up to 10,000 kilometres from the place of origin. Any earthquake produces two types of wave: body waves, which spread quickly through the earth's mantle, and surface waves, which move more slowly in the earth's crust. By comparing the readings for each group of waves and the differences between their times of arrival, seismologists can often determine very accurately where the phenomenon occurred and whether it is an earthquake or an explosion.

Mr. Speaker, advanced research is going on in the world now to determine the effectiveness of an international seismic detection system that could verify a comprehensive nuclear test ban treaty. In keeping with our long-standing desire to conclude a comprehensive nuclear test ban treaty, Canada is playing a major role in this research. Canada's international efforts to establish the reliability of seismic techniques for possible verification of a future comprehensive nuclear test ban treaty have been led by the Verification and Research Section of the Departments of External Affairs and Internation-