

## SUSPENSION OF NUCLEAR TESTS

The following statement was made in the First Committee of the United Nations General Assembly by the Canadian Representative, Lieutenant-General E.L.M. Burns, November 26, 1965:

Canada has long held the view that it is very much to be desired that all nuclear-weapons tests should be stopped. The draft resolution presented by non-aligned countries calls for action basically in accordance with the policy of the Canadian Government, and the Canadian Delegation will vote in favour of the resolution.

The Canadian Delegation attaches particular importance to the third operative paragraph of the resolution requesting the Eighteen-National Disarmament Committee (ENDC) to continue with energy, determination and a sense of urgency, its work on a comprehensive test-ban treaty. In our view, the key words in this paragraph are "arrangements banning effectively all nuclear-weapons tests in all environments, taking into account improved possibilities for international co-operation in the field of seismic detection". Put in another way, the heart of the problem is to conclude an international treaty prohibiting nuclear-weapons tests in all environments under conditions which would ensure that parties to the treaty can have confidence that obligations undertaken by signatories are being complied with, and that nuclear-weapons tests are not being carried out in secret. How else is it possible to establish that element of confidence which is essential if an international treaty on a matter affecting the security of states, and even the balance of military power underpinning world security and stability, is to be generally accepted to become a lasting part of the fabric of international law? In short, there must be an effective means of verifying that all nations who subscribe to the treaty will honour their obligations.

Difficulties in the detection of underground nuclear tests are well known. Statements made by representatives of certain countries in the recent session of the ENDC, and documents tabled at that meeting, which are included in the ENDC's report, indicate that while some progress has been made in the detection and identification of underground nuclear explosions by seismic methods, there still remain a number of events that cannot be identified by remote seismic observations alone and which could be suspected as possible violations of a test ban unless they could be eliminated by some supplementary means.

In the opinion of the Canadian Delegation, it would be disastrous if there should be an agreement to stop underground testing relying on the good faith of participants alone, and events should come about which would cause a breakdown in the agreement. What would happen if a suspicious event should occur in a certain country, A - an event which seemed to have all the earmarks of a nuclear explosion - and this fact was registered in the seismic apparatus of another country, B? If country A denied there had been a nuclear explosion and would give no concrete proof there had been none, country B might declare that it was no longer bound by the

treaty. This lead might be followed by other countries with the danger that the whole arrangement would break down. This, in turn, might bring into question the treaty to stop testing in the other three environments and undo what has been accomplished so far.

### EXCHANGE OF SEISMIC DATA

Having established that there are substantial problems, both scientific and political, to be overcome before a completely effective system of detecting and identifying underground tests can be established, the Canadian view is that we should start to do something concrete now to overcome them. It is also our view that the smaller nations could, and should play a part in the process, and it is because of this that we have noted with interest the suggestion of Sweden and others for international co-operation looking to further progress towards effective verification. The Canadian Delegation believes that progress towards acceptable and effective arrangements for verifying a comprehensive test-ban treaty can be made first, through increased exchange of seismic data about underground events between countries interested in making a contribution to the solution of this problem. One object of such exchanges would be to develop criteria by which to establish precisely what kind of data are significant in relation to the detection of underground nuclear explosions. Another purpose would be to arrive at some workable method of exchanging significant data, that is to evolve some agreed standard format in which data could be exchanged between authorities of different countries. A third and important object would be to work out procedures which would enable data to be exchanged with sufficient speed to be meaningful and useful for effective verification of a comprehensive test ban.

### DATA CLEARING-HOUSE PROPOSED

Once some of these practical problems have been solved on the basis of actual experience, and the habit of exchanging seismic information has been established, we would then be in a position to turn our attention to the second broad aspect of the problem. As we see it, this is to establish some international arrangement for pooling and exchanging significant seismic data through a simple clearing-house or data centre. At the present time, the Canadian Delegation has no firm views about where or how such a central unit might be established. We do, however, consider that its main function should be to act purely as a collection and distributing centre for significant scientific and other information. The kind of central unit we have in mind should not have any responsibilities for interpreting data passing through its hands or forming judgments about the information it provides. The interpretation of information would be a political function resting with the governments. The governments should be free to make their own determination about significance of the information provided and whether an underground nuclear explosion had taken place. In the process of doing so, the governments could, of course, make