

PROGRESS REPORT TO THE CONFERENCE ON DISARMAMENT ON THE
TWENTY-FIFTH SESSION OF THE AD HOC GROUP OF SCIENTIFIC
EXPERTS TO CONSIDER INTERNATIONAL CO-OPERATIVE MEASURES
TO DETECT AND IDENTIFY SEISMIC EVENTS

1. The Ad Hoc Group of Scientific Experts to Consider International Co-operative Measures to Detect and Identify Seismic Events, initially established in pursuance of the decision taken by the Conference of the Committee on Disarmament on 22 July 1976, held its twenty-fifth formal session from 7-18 March 1988 in the Palais des Nations, Geneva, under the Chairmanship of Dr. Ola Dahlman of Sweden. This was the seventeenth session of the Group convened under its new mandate by the decision of the Committee on Disarmament at its 48th meeting on 7 August 1979.

2. The Ad Hoc Group continues to be open to all member States of the Conference on Disarmament, as well as upon request to non-member States. Accordingly, scientific experts and representatives of the following member States of the Conference on Disarmament participated in the session: Argentina, Australia, Bulgaria, Canada, China, Czechoslovakia, Egypt, German Democratic Republic, Germany, Federal Republic of, Hungary, India, Italy, Japan, Netherlands, Sweden, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland and United States of America.

3. At their request and on the basis of previous invitations by the Committee on Disarmament, scientific experts and representatives from the following non-member States of the Conference on Disarmament participated in the session: Austria, Denmark, Finland, New Zealand, Norway and Spain.

4. A representative of the World Meteorological Organization also attended the session.

5. Under the current mandate of the Ad Hoc Group, information on national investigations related to the work of the Group has been presented by experts from Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Egypt, Finland, German Democratic Republic, Germany, Federal Republic of, Hungary, India, Indonesia, Islamic Republic of Iran, Italy, Japan, Netherlands, New Zealand, Norway, Peru, Poland, Romania, Sweden, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland and United States of America.

6. The Group continued the discussions begun at the twenty-third session on the overall concept of a modern international seismic data exchange system based on the expeditious exchange of waveform (Level II) and parameter (Level I) data and the processing of such data at International Data Centres (IDCs); the general principles for which were agreed earlier in the Group presented in documents CD/721 and CD/745.

These discussions were based on draft chapters prepared by Study Group Convenors earlier appointed by the Ad Hoc Group (CD/778) and were aimed towards further elaboration of these general principles. The discussions were aided by a number of new national contributions from participating States.

7. With regard to the envisaged global network of seismograph stations, the Ad Hoc Group considered various preliminary specifications for modern prototype "CD stations" able to collect and exchange high quality waveform data from seismic events at all distances, including arrays able to provide preliminary location data for detected events.

8. Each National Data Center (NDC) in the envisaged global system should regularly prepare standard parameter lists and digital waveform segments from each detected signal and transmit this data expeditiously to the IDCs. The Ad Hoc Group conducted discussions on the technical design and functional requirements of NDCs.

9. The Ad Hoc Group discussed various technical options for establishing high-speed inter-IDC communication links as well as technical means for data transmissions between NDCs and IDCs.

The representative of WMO reviewed the status of WMO/GTS and introduced a document summarising recent discussions and decisions by the WMO Commission for Basic Systems regarding the exchange of seismic data on the WMO/GTS. The Commission decided to entrust the Working Group on the GTS with the task to study in detail the possible transmission of Level II seismic data on the GTS, in liaison with the Ad Hoc Group of Scientific Experts of the Conference on Disarmament and its relevant study group, with the assistance of the WMO Secretariat.

10. The Group conducted discussions on the procedures to be used at International Data Centres. The utilisation of waveform data in the regular analysis at IDCs implies that new data handling and analysis facilities, as well as scientific methods and procedures for analysing global network data, need to be developed.

11. With regard to the preparation of a detailed report to the Conference on the conceptual design of a modern international seismic data exchange system, the Group agreed that the Scientific Secretary should work out a draft of such a report in advance of the next session. The Study Group Convenors were asked to submit any additional draft material to the Scientific Secretary no later than 15 April 1988.

12. In accordance with the decision taken at the twenty-second session to conduct a large scale experiment the Group discussed a preliminary plan for the experiment worked out by the Co-ordinator. The Group reaffirmed the advisability of a stage-by-stage approach in order to test proposed concepts for the envisaged system, and considered a preliminary time schedule in this regard.

13. The Group asked the Co-ordinator to prepare and submit for the next Session a revised plan and to submit proposed instructions and procedures for the conduct of the large-scale experiment. All Convenors of the Study Groups as well as other participating experts were asked to submit contributions in this regard directly to the Co-ordinator before 15 May 1988.

14. The Ad Hoc Group suggests that its next session, subject to approval by the Conference on Disarmament, should be convened from 25 July to 5 August 1988 in Geneva.