

CONFERENCE ON DISARMAMENT

CD/682
24 March 1986

Original: ENGLISH

PROGRESS REPORT TO THE CONFERENCE ON DISARMAMENT ON THE TWENTY-FIRST 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-first formal session from 10 to 21 March 1986 in the Palais des Nations, Geneva, under the Chairmanship of Dr. Ola Dahlman of Sweden. This was the thirteenth 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: Australia, Belgium, Bulgaria, Canada, China, Czechoslovakia, Egypt, German Democratic Republic, Germany, Federal Republic of, Hungary, Italy, Japan, Netherlands, Poland, Sweden, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland and the 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 Turkey.
4. 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 and United States of America.
5. During its tenth session, the Ad Hoc Group agreed to establish five study groups in order to achieve an appropriate compilation, summarization and assessment of the experience acquired through national investigations and co-operative studies in areas relevant to its work. These open-ended study groups each deal with a specific issue, and are each headed by a convenor and a co-convenor, as follows:
 1. Seismological stations and station networks: Dr. Basham (Canada), Dr. Schneider (German Democratic Republic)

2. Data to be regularly exchanged (Level I data): Dr. Harjes (Germany, Federal Republic of), Dr. Fiedler (Czechoslovakia)
 3. Format and procedures for the exchange of Level I data through WMO/GTS: Dr. McGregor (Australia), Dr. Suyehiro (Japan)
 4. Format and procedures for the exchange of Level II data: Dr. Husebye (Norway), Dr. Christoskov (Bulgaria)
 5. Procedures to be used at international data centres: Dr. Johansson (Sweden), Dr. Alewine (United States of America)
6. Working under the current mandate given to the Ad Hoc Group in August 1979 by the Committee on Disarmament, the Group systematically defined the elements of an international co-operative seismic data exchange system and developed some of its basic scientific and technical aspects. This work was followed by more detailed specifications of many of its components. Practical co-operative tests of selected parts of the proposed system have been performed with broad multilateral participation, and have provided extremely valuable experience and technical information, previously unavailable, on many components of the proposed system.
7. During its eighteenth session, the Ad Hoc Group worked out and agreed on detailed procedures and time schedule for a technical test concerning the exchange and analysis of Level I data using the WMO/GTS (document CD/534). This technical test which was named the Group of Scientific Experts' Technical Test (GSETT) 1984, was the first one conducted making regular use of the WMO/GTS. It further developed procedures for the use of the WMO/GTS for seismic Level I data exchange, and procedures related to the use of the WMO/GTS at envisaged international data centres.
8. The technical test covered seismic Level I data for the period from 00.00 Universal Co-ordinated Time (UTC) 15 October to 24.00 14 December 1984. The preparation and transmission of event bulletins from experimental international data centres (EIDCs) continued until 15 January 1985. The time period from 15 October to 26 October 1984 was designated as a preparatory phase to establish reliable communications.
9. The Ad Hoc Group reviewed and reached provisional agreement on substantial portions of a detailed report on the results of the technical test, to be submitted to the CD following the Group's next session.

Due to considerable redrafting, it was for practical reasons not possible to finish the considerations of that report and its appendices.

The Group agreed upon a provisional summary of the report. This provisional summary is submitted to the CD as document CD/681.

10. Overall, the GSETT proved very successful, as the test has provided a vast amount of experience, previously unavailable, on many aspects of practical operation of a global seismic data exchange system.

The GSETT demonstrated that the Global Telecommunication System of the World Meteorological Organization in many parts of the world ensures in general an operative and undistorted transmission of Level I seismic data for the proposed international system for exchange of such data.

The GSETT showed that most of the procedures developed by the Group to collect, exchange, compile and analyse seismic Level I data worked satisfactorily in practice. However, the Technical Test also showed that in some areas further developments are necessary.

11. The Group recommends that it define the emphasis of its future work at its next session. This work would draw upon its previous results and experiences, taking into account all achievements of seismology, for the further development of the scientific and technical aspects of the global system.

12. Some delegations stated that this work should, as well, take into account the requirements for such achievements in application to the state of affairs on item 1 of the agenda of the Conference on Disarmament.

Other delegations expressed the view that such requirements were outside the technical and scientific responsibilities of the Group.

13. The delegations mentioned first considered that the work of the Group is organically linked with progress on the elaboration of a treaty on the complete and general prohibition of nuclear weapon tests.

14. The Ad Hoc Group suggests that its next session, subject to approval by the Conference on Disarmament, should be convened from 21 July to 1 August 1986 in Geneva.