Since 1988, the GSE has been refining the technical specifications of the global system to take advantage of seismic "waveform" data. Waveform data are the original recordings made at a seismograph station of its detected seismic events, which could be earthquakes or nuclear explosions. They are more voluminous than parameter data, thus their transmission to other locations places greater demands on the communications system used. Nonetheless, if waveform data for detected seismic events could be transmitted rapidly to International Data Centres (IDCs) for processing, a much-refined record or "bulletin" of each seismic event could be produced.

Preparations for global data exchange experiment

The experiment currently being planned by the GSE, called GSETT-2, is intended to demonstrate the improvements to the global seismic data exchange system that would come about from the exchange and processing of waveform data. The chief Canadian delegate to the GSE, Dr. Peter Basham, is the overall coordinator of the experiment.

GSETT-2 is being conducted in four phases. Phase 1, which began in August 1988, is a preparatory phase during which the GSE is refining the procedures to be used for the experiment; participating countries are identifying and upgrading appropriate seismograph stations, national data processing facilities and data communications channels; and the four IDC countries (Australia, Sweden, the USA and the USSR) are establishing appropriate computer and inter-IDC communication facilities.

Phase 2, scheduled to begin in January 1990, will involve the exchange and processing of seismic data — both parameter and waveform — one day per week. Outstanding problems will be addressed during the March 1990 GSE session and Phase 2 continued as necessary up to the July/August 1990 GSE session.

Phase 3, which will involve data exchange and processing seven days per week, is tentatively scheduled for September to December 1990. Phase 4 will involve an evaluation of GSETT-2 and preparation of a report for the Conference on Disarmament.

By the end of August 1989, only 21 countries offering data from 41 seismograph stations had indicated their intention to participate in GSETT-2. The GSE does not consider this a sufficient test of the envisaged global system, particularly because there will be no participating stations in Central and South America, Africa and parts of Asia. Canadian contributions will include seismic data from the Yellowknife Array.

The GSE workshop in Yellowknife was co-sponsored and co-hosted by External Affairs and International Trade Canada and Energy, Mines and Resources Canada. ☐

Countries Represented on the GSE

Argentina*
Australia*
Austria
Belgium*
Bulgaria*
Canada*
China*
Czechoslovakia*
Denmark
Egypt*
Federal Republic of Germany*
Finland
German Democratic Republic*
Hungary*
Iran*
Italy*
Japan*
Netherlands*
New Zealand
Norway
Poland*
Spain
Sweden*
Switzerland
United Kingdom*
USA*
USSR*

* indicates member of the CD ☐

Acronyms Used in this Volume

ATC — Armoured Troop Carrier
ATTU — Atlantic to the Urals
AVLB — Armoured Vehicle Launched Assault Bridge
CD — Conference on Disarmament
CFE — Negotiation on Conventional Armed Forces in Europe
CSCE — Conference on Security and Cooperation in Europe
CTB — Comprehensive Test Ban
CTBT — Comprehensive Test Ban Treaty
CW — Chemical Weapons
DRES — Defence Research Establishment Suffield
GSE — Group of Scientific Experts
GSETT — Global Seismic Exchange Technical Test
IDC — International Data Centre
NATO — North Atlantic Treaty Organization
NGOs — Non-Governmental Organizations
NPT — Non-Proliferation Treaty
PTBT — Partial Test Ban Treaty
UN — United Nations
UNDC — United Nations Disarmament Commission
UNGA — United Nations General Assembly
UNHCR — United Nations High Commissioner for Refugees
UNICEF — United Nations Children's Fund
UNSSOD — United Nations Special Session on Disarmament ☐

For Further Information

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