

(Mr. Dalman, Chairman, Ad Hoc Group of Scientific Experts)

groups. Several of these working groups have thereby finalized their work. An annex attached to the progress report summarizes these elaborations. This annex presents the objectives and the overall concept of the system, which I have already briefly outlined. It further contains the technical specifications for the stations to be used and for the International Data Centre. Based on the experience from previous tests and on results of computer simulation, the GSE now proposes a specific network of 52 Alpha stations to be used in the forthcoming experiment, which we refer to as GSETT-3. GSETT-3 thus differs substantially from previous large-scale tests as the Group now proposes a specific network. This experimental network has an estimated detection threshold of about magnitude 3.5 in most parts of the globe, somewhat lower on the continents. To achieve a detection threshold on magnitude 3.5 and even somewhat better in most parts of the world is the most significant improvement of today's capability. GSETT-2, which utilized data from available stations and which did not attempt to create an optimized network, provided a detection capability of magnitude 4.5 or less. This means that the experimental network now proposed is estimated to have a detection capability at least 10 times that obtained during GSETT-2.

Annex 1 contains a tentative distribution of the Alpha stations, containing 27 array and 25 three-component stations, based to the extent possible on existing facilities. This distribution may be somewhat modified during the further planning of the experiment. Those countries which have stations that will form part of the experimental network are urged to make formal commitments to contribute these facilities to GSETT-3.

The Group has established a tentative plan and schedule for the implementation and testing of the experimental system. The intention is to start the full-scale testing on a global scale by 1 January 1995. Work is already under way, not only to define the system and the functional requirements of its components, but also to develop the experimental International Data Centre in the United States.

The Ad Hoc Group has established three working groups with great responsibilities to handle GSETT-3: one for planning, one for operation and one for evaluation. As GSETT-3 is to be a major undertaking by the Group, the overall coordination will be conducted by the Chairman and the Scientific Secretary. The Group is paying special attention to a continuing evaluation of the test to be able to provide the Conference on Disarmament and the Ad Hoc Committee on a Nuclear Test Ban with experience and results as GSETT-3 evolves.

The Group considered during its session the cost of establishing and operating seismological systems and focused on the experimental system to be utilized during GSETT-3. In my presentation to the Ad Hoc Committee on a Nuclear Test Ban on 5 August, I discussed the issue of cost estimates at some length and I will today only briefly summarize the Group's present analysis, which is annexed to the progress report.

The Group stresses that careful analysis is required to make cost estimates with reasonable accuracy. Such an analysis must be based on fairly detailed knowledge, not only of the geographical extent of the system but also