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

international data centre. The system has been looked upon as a service facility for participating countries by providing easily accessible data collected on a global scale for national assessment. The system and its International Data Centre are not supposed to make any final assessments as to the nature of the event, that is, to distinguish between earthquakes or explosions.

In the early days the system was based on the exchange of parameter data obtained through the analysis of regional recordings at national data centres. These parameter data contained the information to allow the detection and location of the event by the International Data Centre. The reporting also contained a so-called identification parameter, describing, for example, the shape or the frequency content of the signals, to assist participating countries in the interpretation or identification of events. A lot of work was done at that time to develop and test suitable such identification parameters. This limited reporting constrained to parameter data only, which corresponded to about one written page per day, was partly due to the limited technical data transmission capabilities of those days. The main reason was, however, the political concern at the time about exchanging large volumes of original recordings.

The political climate has changed and the constraints have been lifted. Over the years the system has gradually been developed through research efforts, through the installation of new technical facilities in individual countries and through efforts within the Group to modernize the system so as fully to utilize the scientific and technological developments. The experimental system now being proposed by the Group thus differs considerably from the original system, not only in technical design, but also in capability.

The new system which was presented to the Conference on Disarmament following the Group's meeting in February this year is based on the on-line transmission of data from a global network of high-quality stations to an advanced International Data Centre. The system is designed to meet far-reaching technical and operational requirements. Most of these stations are array stations, where many sensors are emplaced to form an antenna to improve signal detection. This primary, or Alpha network is supplemented by a larger number of stations, referred to as the Beta network, from which data is retrieved by the International Data Centre as required. Individual countries may contribute additional data, called gamma data, as they see fit in order to facilitate the analysis of an event.

The system is thus now based on the on-line exchange of complete recordings, which means that all information is available to all participants. This has made the exchange of special identification parameters, which was a most essential element in earlier versions of the system, unnecessary, as such parameters can be calculated from the original data in a manner that suits the actual need by the individual countries receiving this data.

The Group has, during its session, elaborated functional requirements for the components of this new International Seismic Monitoring System. These elaborations have been based on material provided by a number of working