

An important source of official information is that supplied by certain non-nuclear-weapon state governments which record the testing activity of the nuclear powers. The most prominent source in this category is the Swedish National Defence Research Institute (known by its Swedish acronym as FOA). Its work on seismic discrimination, which is financed by the Swedish Foreign Office, is meant to establish an acceptable verification system for a comprehensive test ban. FOA operates the Hagfors Observatory and publishes the data; it uses data from its own seismic network and those from other observatories, comparing them and updating the lists. Several other institutions, such as those in New Zealand, Norway and the Australian Seismological Centre which opened in 1986, are co-operating in efforts to establish a world-wide seismic monitoring system. Most of the seismic data exchanged by such institutions are incomprehensible to the non-specialist, although several institutions translate these data into understandable lists of nuclear explosions or seismic events.

Newspaper accounts, books and journal articles also constitute a source of information.

II. INTERPRETATION

With as much information accumulated about the tests as possible, certain patterns emerge which begin to indicate the more significant aspects of testing. Simple statistical summaries reveal basic and interesting facts. How many tests have been conducted by each country? How many were conducted above and below ground? How many were conducted before and after the PTBT? How many were done underwater, at very high altitudes, and so on?

Other patterns emerge by examining US and Soviet testing activity just prior to the entry into force of the PTBT and the Threshold Test Ban Treaty (TTBT). From November 1958 to September 1961, neither the USA nor the USSR tested nuclear weapons. The USSR resumed testing on 1 September 1961 and conducted approximately 50 tests by the end of the year, while the United States conducted only 10. In 1962 the USA conducted 98 tests (including 2 with the UK) and the Soviet Union 44. These more than 200 explosions in a 16-month period (one every two and one-half days)