

K25(G76)

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Proposal Abstract K25(G76)

1. Arms Control Problem:

Nuclear weapons - comprehensive test ban

2. Verification Type:

- (a) Seismic sensors - international network
- (b) Remote sensors - satellites
- (c) International exchange of information
- (d) Complaints procedure - consultation and cooperation
- (e) International control organization

3. Source:

Sweden. "Working paper on cooperative international measurements to monitor a CTB". CCD/482, 26 March 1976.

4. Summary:

The paper is intended as a discussion of further possible international cooperative measures to facilitate global monitoring of a CTB. It has been shown* that identification capability is improved by combining data from several observatories. The basic idea of the proposal in this working paper is to establish a network utilizing existing or planned seismic installations. Such a network has the advantage of being relatively cheap and of being put into operation easily and rapidly. There would be no requirement for uniform equipment or detection procedures, though the stations must have comparable capabilities. The number of stations would be kept small, thus keeping data to manageable proportions.

The whole system would consist of a global network supplemented by local networks to monitor key areas or areas where evasion might be likely (i.e. alluvium deposits). The paper gives an example of a network consisting of 46 stations in 26 countries including 5 in the USSR.

The parameters extracted from recordings at the stations would be regularly transmitted to an international data centre by telex. Full recording could be exchanged by mail when necessary. The international data centre would be charged with collecting and analyzing the data. This is a valuable role because many countries possess limited expertise and facilities to carry out such operations. However, the political assessment of the seismic events detected would be left to the parties themselves. The international data centre would also have the function of conducting consultations and inquiries with designated institutions in order to obtain

* See: Canada/Sweden, CCD/380, 27 July 1972; and Japan/Sweden, CCD/441, 13 August 1974.