

FINLAND

Air Monitoring as a Means for the Verification
of Chemical DisarmamentIntroduction

1. In working paper CCD/502 the United Kingdom presented a theoretical model for using air monitoring to detect chemical weapons tests. Since then Finland has published three reports describing experimental research on air monitoring (Blue Books 1985, 1986, and 1987). On the basis of the results presented in these reports, this paper proposes inclusion of air monitoring to the overall verification scheme of the CW Convention.

2. Current plans call for verification of the compliance with the Convention through international on-site inspections and on-site instrumental verification at declared production facilities, stockpiles, destruction plants, and civilian chemical facilities. The primary role we foresee for ambient air monitoring in the verification scheme is as a means to the detection of possible nondeclared activities.

Network of monitoring stations

3. A global network consisting of automatic air monitoring stations, 400-500 km apart, and selected stations capable of collecting and analysing high-volume air samples, would seem both adequate and realistic. Dilution in the air of the original agent cloud leads to extension of the cloud and so increases the probability of detecting agents at some of the stations hundreds of kilometres from the release site. If monitoring stations were spaced 400-500 km or less apart, chemical warfare agents could be detected before major atmospheric transformation.