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ITRAP – AN INTERNATIONAL PILOT STUDY ON BORDER MONITORING SYSTEMS

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The paper describes the design and preliminary results of an extended pilot study of commercially available monitoring systems for the detection of nuclear and other radioactive materials at borders. The study consists of a laboratory test phase and field tests at the Austrian/Hungarian border and the Vienna airport, each for a duration of one year. The results will be used to derive realistic performance requirements for border control systems in view of optimized technical and economic conditions as well as to propose an “investigation level”.

The ITRAP study consists of three phases. In the first phase equipment currently available on the market is subjected to laboratory testing at the Austrian Research Centres Seibersdorf. The instrument categories include hand-held, portable, and fixed-installed equipment. The test criteria defined as minimum requirements have been established together with the manufacturers. The laboratory tests started in May 1998 and will last until end of this year. During the second phase, the field study, equipment passing the laboratory tests will be installed at a major Austrian-Hungarian border crossing (Nickelsdorf) for monitoring of cars, trucks and trains, as well as at the Vienna airport for pedestrians, luggage and cargo. In this phase the results gained from the lab tests about the ‘fitness for use’ will be verified in practice, in close co-operation with the law enforcement officers at the borders. Also training issues and questions of maintenance and support shall be evaluated. In the third phase realistic specifications and performance requirements shall be derived with the help of international experts and selected specialists from the users and manufacturers. The results of the field study will focus not only on the technical aspects of monitoring equipment (e.g. detection threshold and rate of false alarms) but also on the operational (e.g. ease of use, reliability, training requirements, field support) and economic aspects of extended border installations.

The paper describes the results obtained so far in the laboratory tests and the beginning of the field testing.