

## CTBTO tests its on-site inspection regime in Kazakhstan



IFE08 WILL TAKE PLACE IN AN AREA 250 KILOMETRES WEST OF SEMEY.

The former Soviet Union's nuclear test site at Semipalatinsk in the east of today's Kazakhstan was closed down after Kazakhstan became an independent State in 1991. This region in the Kazakh steppe is deserted and pockmarked by countless craters, remnants of over 450 nuclear explosions that were detonated there.

In September 2008, the area will start brimming with activity. Scientists, diplomats and journalists will arrive

from all over the world to witness an endeavour in the Kazakh steppe that is of great significance for the safety of our planet. The organization that monitors the comprehensive ban on nuclear testing will conduct a large scale exercise to test one of the key elements of its global alarm system – on-site inspections.

### Unprecedented scope

The scope of the exercise is unprecedented. It will be the largest and most ambitious project ever undertaken in the history of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO). And

it will reinforce the Comprehensive Nuclear-Test-Ban Treaty's (CTBT) significant role in the international framework of nuclear non-proliferation and disarmament. Involving a team of 40 inspectors and the shipment of 40 tonnes of equipment to the inspection area in a matter of a few days, this exercise will bear greater resemblance to a humanitarian aid operation than an inspection under a non-proliferation Treaty regime.

*The exercise will be the largest and most ambitious project ever undertaken in the history of the CTBTO and will reinforce the CTBT's significant role in the international framework of nuclear non-proliferation and disarmament.*



THE KAZAKH STEPPE HAS BEEN THE SITE OF PREVIOUS ON-SITE INSPECTION EXERCISES LIKE THIS ONE IN 2005.



GAMMA RADIATION CAN BE PERFORMED FROM THE HELICOPTER...



...OR ON THE GROUND WITH HAND-HELD INSTRUMENTS.

### Initial inspection period

Just one day after arrival at the inspection area, inspectors will begin the actual inspection, applying techniques identified by the Treaty as suitable for the initial phase of the inspection.

Based on the analysis of monitoring data, an inspection area comprising a maximum of 1000 square kilometres will be identified. This is still a fairly large

area. Most of the techniques applicable in the initial inspection period will allow the inspectors to familiarize themselves with the territory and narrow down the area to be inspected.

*A team of expert inspectors gather facts to provide the answer and to identify the possible violator of the Treaty. Their findings will give States the means to come to an informed decision on the matter. Thus, on-site inspections are the final verification measure under the CTBT.*

One of the first activities of the inspection team will be a helicopter overflight to become acquainted with the unknown terrain and to identify possible areas on the ground for further inspection. Other methods will be applied as well, including:

- Visual observations to detect anomalies in the surroundings that may point to a possible nuclear explosion;
- Gamma monitoring to identify elevated gamma radiation and the emitting substances;
- Environmental sampling and analysis to detect radioactive particulates and noble gases that may have been generated by a nuclear explosion;



ELECTRICAL CONDUCTIVITY MEASUREMENTS WERE TESTED DURING A TRAINING COURSE IN HUNGARY IN OCTOBER 2007.





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