

North Korea claims nuclear test

North Korea says it has carried out its first ever test of a nuclear weapon. The state news agency reported the underground test was a success and had not resulted in any leak of radiation. The blast – measuring 3.6 on the Richter scale – was the equivalent to a yield of about 550 tonnes of TNT

Monday, 01:36GMT: Tremor detected at P'unggye-yok in Hamgyong province

UNDERGROUND NUCLEAR TESTING

Location of test site based on...

1. Distance from inhabited areas
2. Groundwater and aquifers
3. Geology – rock type and structure
4. Drill depth required for placement

Vertical borehole: 1-3m diameter – needs specialised drilling equipment supported by reinforced platform at surface. Backfilled to prevent radioactive leakage

Instrumentation buildings: At least 2km from **Ground Zero**. Cables to diagnostic canister in borehole to measure bomb yield and radioactivity



Chimney:

When explosion subsides, column of rock collapses leaving crater at surface

Cavity: Vaporised rock leaves hole, size dependent on yield – e.g. 12m radius from 1 kiloton bomb

Horizontal mineshaft: For “weapon’s effects tests”, e.g radiation and thermal tests

