

North Korea's nuclear test site

Nuclear tests: Estimated yields (1kt = 1,000 tons of TNT) **Quake magnitude**

- ⑥ Sep 2017: 120kt 6.3
- ⑤ Sep 2016: 20-30kt 5.3
- ④ Jan 2016: 7-10kt 5.1
- ② May 2009: 2-5kt 4.7
- ③ Feb 2013: 6-14kt 5.1

Mount Mantap

Punggye-ri
command centre

① Oct 2006: 1kt 4.3



Tunnel:
3m wide x
3m high

500m
550yds
700 metres

TUNNEL LAYOUT:

Based on tunnel featured in propaganda film of 2009 test. Shaped like fish-hook, similar to design used by Pakistan

Sharp corners, and several dead ends help deflect and absorb blast

- ① Blast doors
- ① Debris trap

Blast intended to be absorbed within area defined by first four bulkheads

Nuclear device:
Placed at end of tunnel



Sand, gravel or other materials can be mixed with concrete to plug segments of tunnel to further contain explosion and prevent ejecta from escaping into atmosphere