

# Effects of North Korea Pacific nuclear test

North Korea's threat to conduct an atmospheric nuclear test in the Pacific would likely involve launching a ballistic missile over Japan



## SCENARIO 1: Surface burst

- **Minimum burst height of 0.66km needed to create significant fallout**

- **Destructive but localised impact on sea life. Could affect passing ships, shipping lanes and fishing zones**

- **Likely remoteness of blast zone, dispersal and dilution would limit human exposure to radiation**

## SCENARIO 2: High-altitude burst

- **Minimizes collateral damage. No thermal radiation effects**

- **Would allow North Korea to avoid having to rely on its still rudimentary warhead re-entry technology**

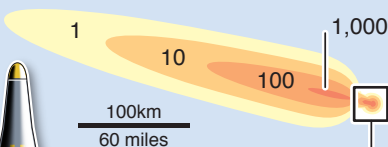
- **Electromagnetic pulse effect could damage or disrupt radar, satellite and radio networks**

## SCENARIO 3: Missile failure

Accident or error could result in nuclear blast at location and altitude that differs from original intent

## Radioactive fallout model

(surface burst, wind speed 24km/h)



Figures indicate radiation dose in rads per hour\*

**Fireball radius**  
**0.95km**

**Air blast**  
**3.6km**

**Thermal radiation 7.9km**

Data for 500-kiloton hydrogen bomb.  
\*Fatal dose 1,000 rads per hour