

North Korea's second strike capability

Analysts say North Korea's latest test launch of a KN-11 missile shows Pyongyang has succeeded in developing "cold launch" technology, which means it can fire a ballistic missile vertically from a submarine

Sinpo-class submarine

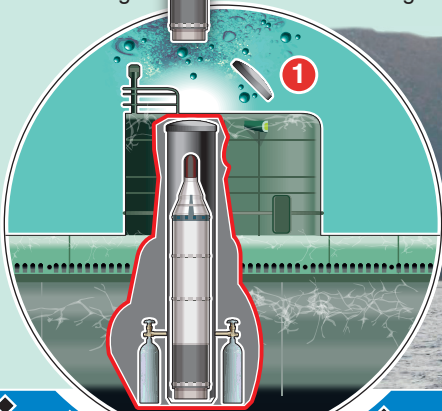
Length: 68m
Speed: 10 knots (dived est.)
Propulsion: Diesel-electric
Crew: 30-50

Conning tower: Satellite imagery indicates submarine has one or two launch silos mounted in sail
Two or four torpedo tubes

NK-11 (Polaris-1)

Length: 9.3m
Warhead: 650kg

1. **Cold launch:** Missile expelled from silo by compressed air
2. Solid fuel engine ignites above water



2014

Oct 2014:

Existence of Sinpo-class ballistic missile submarine revealed

Jan 2015:

First flight test of KN-11 missile

2015

May: Ejection test from silo on submerged barge

2016

Dec: Successful ejection from submarine but ignition fails

Nov: Ejection test from Sinpo submarine fails

Apr 2016:
Successful submarine launch