

# North Korea's Space Capabilities

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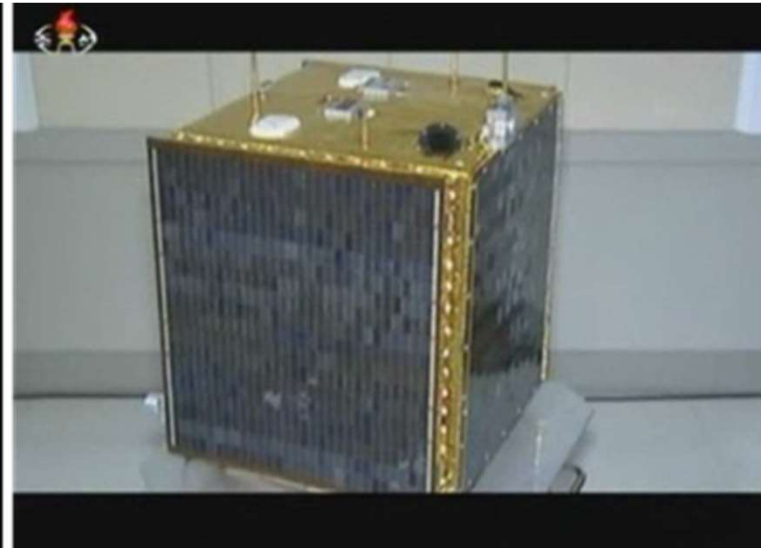


# North Korea has very limited space capabilities

- **Relatively good rocket technology**
  - Demonstrated ICBM-class liquid-fuel rockets
  - Rapidly developing solid-fuel technology
- **Poor satellite technology**
  - Very basic capabilities for GNC, solar power, imagery
  - Poor record of reliability
- **Very limited tracking/command and control capabilities**
  - Limited to just passes over Korean Peninsula



# Kwangmyŏngsŏng 4 (KMS 4)



Kwangmyongsong-4: Two views of the purported earth-observation satellite Korea launched in January 2016.  
Image credit: [chinaspaceflight.com](http://chinaspaceflight.com)



# Counterspace capabilities

	U.S.	Russia	China	India	Aus.	France	Iran	Japan	North Korea	South Korea	U.K.
LEO Co-Orbital	■	▲	■	●	●	●	●	●	●	●	●
MEO/GEO Co-Orbital	■	▲	■	●	●	●	●	●	●	●	●
LEO Direct Ascent	■	▲	▲	■	●	●	●	●	●	●	●
MEO/GEO Direct Ascent	■	▲	■	●	●	●	●	●	●	●	●
Directed Energy	■	▲	■	●	●	■	●	●	●	●	●
Electronic Warfare	▲	▲	▲	■	●	■	■	●	■	●	●
Space Situational Awareness	▲	▲	▲	■	■	■	■	■	●	■	■

Legend: none ● some ■ significant ▲

<https://swfound.org/counterspace/>

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# Thank you!

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