North Korea’s cruise missile test

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In news– North Korea has tested a new long-range cruise missile recently.

About the new cruise missile-

- The recent tests saw missiles **travelling up to 1,500km** (930 miles).
- Technically it already had cruise missiles, albeit a shorter range anti-ship system, the Kumsong-3 (KN-SS-N-2 Stormpetrel) based on the Soviet Kh-35.
- Hence, **this is not the first cruise missile test by the country.**
- However, it is **North Korea’s first long-range (1,000 km+) cruise missile and first claimed nuclear-capable cruise missile.**
- **The Academy of National Defense Science conducted long-range cruise missile tests** in North Korea.

UNSC Sanctions

- **UN Security Council sanctions forbid North Korea from testing ballistic missiles,** but not cruise missiles such as these.
- The council considers ballistic missiles to be more threatening than cruise missiles because they can carry bigger and more powerful payloads, have a much longer range, and can fly faster.
- A ballistic missile is powered by a rocket and follows an arc-like trajectory, while a cruise missile is powered by a jet engine and flies at a lower height.

What are Cruise missiles?

- Cruise missiles are fast-moving, guided bombs that soar at a very low trajectory, parallel to the ground.
- They are distinct from regular (non-cruise) missiles primarily because they go really far and all such missiles have an internal guidance system.
- These missiles differ from ballistic missiles in that they are designed to travel within the earth's atmosphere and aerodynamically maneuver for most of their flight time.
- Most cruise missiles use a small, solid- propellant rocket booster, which allows them to gain enough altitude and speed for the onboard sustainer engine to take over.

Table 1 – Key characteristics of ballistic and cruise missiles

Characteristics	Ballistic missiles	Cruise missiles
Range	From low to very high *Up to 15 000 km*	Mostly around 1 000 km *Up to 4 000 km*
Altitude	High *Easily detectable*	Low *Hard to detect*
Precision	Low – around a few hundred metres *Fit for large targets*	High – a few metres *Fit for small and mobile targets*
Speed	Up to 25 000 km/h at impact *Very hard to intercept*	Around 1 000 km/h *Possibility to intercept*

Data source: EPRS.

What is a ballistic missile?

- A ballistic missile follows a ballistic trajectory to deliver one or more warheads on a predetermined target.
- These weapons are guided only during relatively brief periods most of the flight is unpowered.
- Short-range ballistic missiles stay within the Earth's atmosphere, while intercontinental ballistic missiles (ICBMs) are launched on a sub-orbital trajectory.