

**Table 1**  
**North Korean Ballistic Missiles With Potential Nuclear Capability, 2021\***

Type/Name <sup>1</sup>	US/Other Designations	Year Displayed	Range (km) <sup>2</sup>	Stages (Fuel)	Payload x Capacity (kg)	Launchers <sup>3</sup>
<i>Land-based ballistic missiles</i>						
<b>ICBMs (5,500+ km range)</b>						
Hwasong-16	KN27	2020	12,000+	2 (liquid)	1 x 1,700 <sup>4</sup>	TEL
Hwasong-15	KN22	2017	12,000+	2 (liquid)	1 x ?	TEL
Hwasong-14	KN20	2017	10,000+ <sup>5</sup>	2 (liquid)	1 x ?	TEL
Hwasong-?	KN14	2017	? (9,000)	3 (liquid)	1 x ?	TEL
Hwasong-13	KN08 <sup>6</sup>	Dev.	13,000+	3 (liquid)	1 x ?	TEL
(Taepo Dong-2)	Taepo Dong-2 <sup>7</sup>	(2012)	12,000+	3 (liquid)	1 x 800+	Fixed
<b>IRBMs (3,000-5,500 km range)</b>						
Hwasong-12	KN17	(2017)	4,500+	1 (liquid)	1 x 1,000	TEL
Hwasong-10	Musudan <sup>8</sup>	(2016)	3,000+	1 (liquid)	1 x 1,000	<50 TEL
<b>MRBMs (1,000-3,000 km range)</b>						
Pukguksong-2	KN15	(2016)	1,000+	2 (solid)	1 x ?	TEL (C)
Hwasong-9	Scud ER, KN4	(2016)	1,000 <sup>9</sup>	1 (liquid)	1 x 500	TEL
Hwasong-7	Nodong Mod 1/2 <sup>10</sup>	(1993)	1,200+	1 (liquid)	1 x 1,000	<100 TEL
<i>Submarine-launched ballistic missiles (SLBMs)</i>						
Pukguksong-5	KN?	2021	?	2 (solid)?	1 x ?	SSB
Pukguksong-4	KN?	2020	3,500+	2 (solid)?	1 x ? <sup>11</sup>	SSB
Pukguksong-3	KN26	(2019)	1,000+ <sup>12</sup>	2 (solid)	1 x ?	SSB
Pukguksong-1	KN11	Dev.	1,000+	2 (solid)	1 x ?	SSB
<p>* Note: The status and capability of North Korea's missiles comes with significant uncertainty. The inclusion of the missiles in this table does not necessarily mean the authors conclude they are all equipped with nuclear warheads or assigned nuclear missions. Several may have been intended for development of technologies that eventually will become operational on a newer missile. Keys: Dev = In development; ICBM = Intercontinental Ballistic Missile; km = kilometer; IRBM = Intermediate-Range Ballistic Missile; kt = kiloton; n.a. = Not Applicable; MRBM = Medium-Range Ballistic Missile; TEL = Transporter Erector Launcher; TEL (C) = Transporter Erector Launcher with missile canister; SLBM = Sea-Launched Ballistic Missile; SSB = Ballistic Missile Submarine.</p>						

<sup>1</sup> For overviews of missile names and designations for North Korean ballistic missiles, see: Matt Korda's "The Hwasong That Never Ends" list on *Arms Control Wonk* (<http://www.armscontrolwonk.com/archive/1203797/the-hwasong-that-never-ends/>); the Center for Nonproliferation Studies "North Korea overview" on the Nuclear Threat Initiative (NTI) website (<http://www.nti.org/learn/countries/north-korea/>); Center for Strategic and International Studies missile threat project (<https://missilethreat.csis.org/country/dprk/>).

<sup>2</sup> Ranges are uncertain and claims on the Internet about North Korean missile ranges should generally be viewed with considerable caution. Useful sources include: the US Air Force National Air and Space Intelligence Center (NASIC) report *Ballistic and Cruise Missile Threat* (<https://www.nasic.af.mil/About-Us/Fact-Sheets/Article/2468137/2020-ballistic-and-cruise-missile-threat/>); various studies by the US-Korea Institute at SAIS; articles on the 38North.org blog; the James Martin Center for Nonproliferation Studies' North Korean overview at the Nuclear Threat Initiative (<http://www.nti.org/learn/countries/north-korea/>); and articles by David Wright on the Union of Concerned Scientists [allthingsnuclear.org](http://allthingsnuclear.org) blog (<http://allthingsnuclear.org/author/dwright#.Wg9qZ7YrLzw>).

<sup>3</sup> Most launchers have one or more missile reloads. Anonymous intelligence sources in 2017 assessed that North Korea has produced sufficient fissile material to be able to produce 20-60 nuclear warheads.

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Authoritative sources estimate sufficient for around 45 warheads. The number of warheads assembled is likely smaller. Some North Korean launchers, including those for the Hwasong-12 and Hwasong-14, are equipped with detachable firing tables.

<sup>4</sup> Speculations that Hwasong-15 can carry multiple warheads have not been confirmed.

<sup>5</sup> Demonstrated range estimates based on highly lofted trajectory tests.

<sup>6</sup> Many analysts used a photo from the 2015 parade to identify a modified two-stage version of the KN08, but NASIC identified the same image as the Hwasong-14, or KN20.

<sup>7</sup> The Taepo Dong-2 (sometimes spelled as one word: Taepodong-2) is an ICBM modification of the Unha space launch vehicle that was used to place satellites in orbit in 2012 and 2016. The operational status of Taepo Dong-2 is uncertain. It will likely be replaced by the ICBMs currently in development.

<sup>8</sup> The Hwasong-10 or Musudan is also known as BM-25. The missile has suffered many test launch failures.

<sup>9</sup> The 1,000-km range Scud ER is sometime called an SRBM but NASIC lists it as an MRBM.

<sup>10</sup> Other spellings are No-dong, No Dong, or Rodong.

<sup>11</sup> Speculations that Pukguksong-4 can carry multiple warheads has not been confirmed.

<sup>12</sup> Some sources estimate a Pukguksong-3 range close to 2,500 km (United Nations 2021).