Indian Nuclear Forces

India tested its first nuclear weapon in 1974, becoming the sixth country to detonate a nuclear weapon. The country’s arsenal carries weapons with estimated average yields ranging from 12 to 40 kilotons, though exact yields are unknown. India’s “minimum, credible deterrence” policy has been called into question amidst reports that the country is pursuing multiple independently targetable reentry vehicles (MIRVs) for its nuclear missiles.

India is actively pursuing membership to the Nuclear Suppliers Group (NSG) and became a member of the Missile Technology Control Regime in 2016. India has not signed the Nuclear Non-proliferation Treaty.

How Many?

India has never publicly released the size of its nuclear arsenal. Independent assessments approximate a stockpile between 110-120 nuclear weapons, all of which are believed to be non-deployed or in storage, ranking India either sixth or seventh in total nuclear inventories by country (depending on the size of Pakistan’s estimated arsenal).

India possesses a full nuclear triad and is enhancing the country’s nuclear weapons deliverability. India and Russia jointly developed the BrahMos supersonic cruise missile, which is capable of being delivered by the Indian Army, Navy, and Air Force and can reportedly be mounted with a nuclear warhead. According to media reports, India is also further developing the Nirbhay subsonic nuclear-capable cruise.

Air

Though definite numbers are unclear, India possesses the ability to deliver approximately 48 nuclear gravity bombs via the Mirage 2000H and Jaguar IS/IB. The Indian Air Force is also modifying 42 Su-30 MKI multirole fighters to carry BrahMos cruise missiles, as well as developing an air-launched Nirbhay cruise missile.

Sea

The INS Arihant, India’s first ballistic missile submarine (SSBN), is equipped with 12 launch tubes for the Sagarika (K-15) submarine-launched ballistic missile (SLBM), which has a range of 700 kilometers. India is developing the K-4 SLBM, which was test-launched in 2014 to a range of over 3,000 kilometers. The Arihant would likely have to be modified in order to carry the K-4.

India also possesses the Dhanush nuclear-capable sea-based ballistic missile, which has a range of approximately 350 kilometers and can be fired from two retrofitted Sukanya-class patrol vessels. In total, India is estimated to possess approximately 14 sea-based nuclear warheads.

Ground

India’s ground-based nuclear weapons program likely consists of four operational ballistic missile systems and an estimated 56 warheads, with at least three further systems in development. The short-range road-mobile Prithvi-2 and Agni-1 (also rail-mobile) missiles can travel 250 kilometers and 700-1,200 kilometers respectively. The Agni-II and Agni-III are both rail-mobile (Agni-II is also road-mobile) and have ranges greater 2,000-3,500 kilometers and 3,000-5,000 kilometers respectively.

India is further developing the Agni-IV and the Agni-V. Agni-IV is a rail and road-mobile ballistic missile with a range of approximately 4,000 kilometers. The Agni-V is reportedly both rail and road-mobile and has a range of more than 5,000 kilometers, potentially making it the country’s first intercontinental ballistic missile (ICBM). Media reports suggest the newest Indian ballistic missile, the 10,000 kilometer range Agni-VI, may make its maiden test launch in 2017.

Indian officials have said they plan for the Agni-VI, and potentially other Agni variants, to be MIRV capable.