

6. World nuclear forces

Overview

At the start of 2019, nine states—the United States, Russia, the United Kingdom, France, China, India, Pakistan, Israel and the Democratic People’s Republic of Korea (DPRK, or North Korea)—possessed approximately 13 865 nuclear weapons, of which 3750 were deployed with operational forces (see table 6.1). Nearly 2000 of these are kept in a state of high operational alert.

Overall, inventories of nuclear warheads continue to decline. This is primarily due to the USA and Russia reducing their strategic nuclear forces pursuant to implementing the 2010 Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START) as well as making unilateral reductions. At the same time, both the USA and Russia have extensive and expensive programmes under way to replace and modernize their nuclear warheads, missile and aircraft delivery systems, and nuclear weapon production facilities (see sections I and II). In 2018 the US Department of Defense set out plans to develop new nuclear weapons and modify others to give them expanded military roles and missions.

The nuclear arsenals of the other nuclear-armed states are considerably smaller (see sections III–IX), but all are either developing or deploying new weapon systems or have announced their intention to do so. China, India and Pakistan are thought to be increasing the size of their nuclear arsenals. North Korea continues to prioritize its military nuclear programme as a central element of its national security strategy, although in 2018 it announced a moratorium on the testing of nuclear weapons as well as medium- and long-range ballistic missile delivery systems.

The availability of reliable information on the status of the nuclear arsenals and capabilities of the nuclear-armed states varies considerably. The USA has disclosed important information about its stockpile and nuclear capabilities, and the UK and France have also declared some information. Russia refuses to publicly disclose the detailed breakdown of its forces counted under New START, even though it shares the information with the USA. China now publicly displays its nuclear forces more frequently than in the past but releases little information about force numbers or future development plans. The governments of India and Pakistan make statements about some of their missile tests but provide no information about the status or size of their arsenals. North Korea has acknowledged conducting nuclear weapon and missile tests but provides no information about its nuclear weapon capabilities. Israel has a long-standing policy of not commenting on its nuclear arsenal.

Table 6.1. World nuclear forces, January 2019

All figures are approximate. The estimates presented here are based on public information and contain some uncertainties, as reflected in the notes to tables 6.1–6.10.

Country	Year of first nuclear test	Deployed warheads ^a	Stored warheads ^b	Other warheads	Total inventory
United States	1945	1 750 ^c	2 050 ^d	2 385 ^e	6 185
Russia	1949	1 600 ^f	2 730 ^g	2 170 ^e	6 500
United Kingdom	1952	120	80	–	200
France	1960	280	10	10	300
China	1964	–	290	–	290
India	1974	–	130–140	..	130–140
Pakistan	1998	–	150–160	..	150–160
Israel	..	–	80–90	..	80–90
North Korea	2006	–	..	(20–30)	(20–30) ^h
Totalⁱ		3 750	5 550	4 565	13 865

.. = not applicable or not available; – = zero; () = uncertain figure.

^a These are warheads placed on missiles or located on bases with operational forces.

^b These are warheads in central storage that would require some preparation (e.g. transport and loading on to launchers) before they could become fully operationally available.

^c This figure includes approximately 1600 strategic warheads (about 1300 on ballistic missiles and nearly 300 on bomber bases), as well as c.150 non-strategic (tactical) nuclear bombs deployed outside the USA for delivery by US and other North Atlantic Treaty Organization combat aircraft.

^d This figure includes c. 80 non-strategic nuclear bombs stored in the USA.

^e This figure is for retired warheads awaiting dismantlement.

^f This figure includes approximately 1400 strategic warheads on ballistic missiles and about 200 deployed at heavy bomber bases.

^g This figure includes c. 900 warheads for strategic bombers and nuclear-powered ballistic missile submarines (SSBNs) in overhaul and c. 1830 non-strategic nuclear weapons for use by short-range air, air defence and naval forces.

^h There is no authoritative open-source evidence to confirm that North Korea has produced or deployed operational nuclear warheads.

ⁱ Total figures assume the highest estimate when a range is given. Figures for North Korea are not included.

The raw material for nuclear weapons is fissile material, either highly enriched uranium (HEU) or separated plutonium. China, France, Russia, the UK and the USA have produced both HEU and plutonium for use in their nuclear weapons; India and Israel have produced mainly plutonium; and Pakistan has produced mainly HEU but is increasing its ability to produce plutonium. North Korea has produced plutonium for use in nuclear weapons but may have produced HEU as well. All states with a civilian nuclear industry are capable of producing fissile materials (see section X).