

11. World nuclear forces

Overview

At the start of 2017 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 14 935 nuclear weapons, of which 4150 were deployed with operational forces (see table 11.1). Nearly 1800 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, which collectively account for approximately 92 per cent of global nuclear weapons, reducing their deployed nuclear forces as a result of the 2010 Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START) while also making unilateral cuts in their nuclear warhead stockpiles. 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 this chapter).

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, North Korea and Pakistan are thought to be expanding the size of their nuclear arsenals.

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 substantial information about its stockpile and forces, and the UK and France have also declared some information. Russia refuses to disclose the detailed breakdown of its forces counted under New START even though it shares the information with the USA, and the US Government has stopped releasing detailed information about Russian and Chinese nuclear forces. 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. Israel has a policy of not commenting on its nuclear arsenal and North Korea provides no information about its nuclear capabilities.

North Korea continues to prioritize its military nuclear programme as a central element of its national security strategy, and conducted its fourth and fifth nuclear test explosions in 2016. The tests took the total number of nuclear explosions recorded worldwide since 1945 to 2057 (see section XI).

The raw material for nuclear weapons is fissile material, either highly enriched uranium (HEU) or separated plutonium. China, France, Russia, the UK and the

Table 11.1. World nuclear forces, January 2017

All figures are approximate. The estimates presented here are based on public information and contain some uncertainties, as reflected in the notes to tables 11.1–11.9.

Country	Year of first nuclear test	Deployed warheads ^a	Stored warheads ^b	Other warheads	Total inventory
United States	1945	1 800 ^c	2 200 ^d	2 800 ^e	6 800
Russia	1949	1 950 ^f	2 350 ^g	2 700 ^e	7 000
United Kingdom	1952	120	95	–	215
France	1960	280	10	10	300
China	1964	–	270	–	270
India	1974	–	120–130	..	120–130
Pakistan	1998	–	130–140	..	130–140
Israel	..	–	80	..	80
North Korea	2006	–	..	(10–20)	(10–20) ^h
Totalⁱ		4 150	5 275	5 510	14 935

.. = 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 1650 strategic warheads (about 1350 on ballistic missiles and nearly 300 on bomber bases), as well as c. 150 non-strategic (tactical) nuclear bombs deployed in Europe for delivery by US and other North Atlantic Treaty Organization combat aircraft.

^d This figure includes c. 150 non-strategic nuclear bombs stored in the USA.

^e This figure is for retired warheads awaiting dismantlement.

^f This number includes approximately 1750 strategic warheads on ballistic missiles and about 200 deployed on heavy bomber bases.

^g This figure includes c. 500 warheads for strategic bombers and nuclear-powered ballistic missile submarines (SSBNs) in overhaul and c. 1850 non-strategic nuclear weapons for use by short-range naval, air force and air defence forces.

^h There is no 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.

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. The DPRK 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).