

16. World nuclear forces

Overview

At the start of 2016 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 15 395 nuclear weapons, of which 4120 were deployed with operational forces (see table 16.1). Roughly 1800 of these weapons are kept in a state of high operational alert.

Overall inventories of nuclear warheads are declining, primarily due to the USA and Russia continuing the drawdown of their nuclear arsenals as a result of the 2010 Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START) and to unilateral reductions. The pace of reductions appears to be slowing compared with a decade ago, however, and neither party has made significant reductions in its deployed strategic nuclear forces since New START entered into force in February 2011. Furthermore, both the USA and Russia have extensive and expensive modernization programmes under way for their remaining nuclear delivery systems, warheads and production facilities (see sections I and II).

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 has embarked on a long-term modernization programme focused on making qualitative improvements to its nuclear forces rather than on significantly increasing their size. India and Pakistan are both expanding their nuclear weapon stockpiles as well as developing land-, sea- and air-based missile delivery systems. Israel, which neither officially confirms nor denies that it possesses nuclear weapons, is testing a long-range nuclear-capable ballistic missile. North Korea continues to prioritize its military nuclear programme but it is not known whether it has developed an operational nuclear warhead that can be carried by a ballistic missile.

The existence 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. Even though it shares such information with the USA, Russia does not otherwise disclose the detailed breakdown of its forces counted under New START. The US Government has stopped publishing detailed information about Russian and Chinese nuclear forces. China remains highly non-transparent, and little information is publicly available about its nuclear forces and weapon production complex. The govern-

Table 16.1. World nuclear forces, January 2016

All figures are approximate. The estimates presented here are based on public information and contain some uncertainties, as reflected in the notes to tables 16.1–16.9.

Country	Year of first nuclear test	Deployed warheads ^a	Stored warheads ^b	Other warheads	Total inventory
United States	1945	1 930 ^c	2 570 ^d	2 500 ^e	7 000
Russia	1949	1 790	2 700 ^f	2 800 ^g	7 290
United Kingdom	1952	120	95	–	215
France	1960	280	10	10	300
China	1964	–	260	–	260
India	1974	–	100–120	..	100–120
Pakistan	1998	–	110–130	..	110–130
Israel	..	–	80	..	80
North Korea	2006	–	..	(10) ^h	(10)
Totalⁱ		4 120	5 965	5 310	15 395

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

^a ‘Deployed’ means 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 launchers) before they become fully operationally available.

^c In addition to strategic warheads, this figure includes approximately 180 non-strategic (tactical) nuclear weapons deployed in Europe.

^d This figure includes several hundred strategic cruise missiles and bombs and some 300 tactical nuclear bombs.

^e This figure is for retired warheads awaiting dismantlement.

^f This figure includes nearly 700 warheads for bombers and nuclear-powered ballistic missile submarines (SSBNs) in overhaul and nearly 2000 non-strategic nuclear weapons for use by short-range naval, air force and air defence forces.

^g This figure is for retired warheads awaiting dismantlement.

^h Despite four nuclear test explosion and considerable efforts, there is no open-source evidence that North Korea has produced or deployed operational nuclear warheads.

ⁱ Numbers assume highest estimate when a range is given.

ments of India and Pakistan make statements about some of their missile tests but provide no information about the status or size of their respective arsenals. Israel has a policy of not commenting on its nuclear arsenal and North Korea provides no public information about its nuclear weapon capabilities.

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. All states with a civilian nuclear industry are capable of producing fissile materials (see section X).