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Nuclear weapons states

United States of America	
Number of nuclear warheads	5,800 <ul style="list-style-type: none"> • 3,800 nuclear warheads in the military stockpile • 1,750 of these warheads deployed • 2,000 retired and awaiting dismantlement (due to be completed by 2023)
Nuclear weapon system details	Submarines <ul style="list-style-type: none"> • 14 Ohio Class ballistic missile submarines (SSBN) equipped with up to 20 Trident II (D5 or enhanced D5LE) missiles with Mk-6 guidance system and W76-1, W76-2 and W88 warhead. Land based <ul style="list-style-type: none"> • 400 Minuteman III intercontinental ballistic missiles with 400 W87 or W78 warheads Aircraft <ul style="list-style-type: none"> • 20 B-2As and 46 B-52Hs bombers are nuclear capable with around 60 (18 B-2As and 42 B-52Hs) assigned to nuclear missions. Around 300 nuclear weapons are deployed, some are free-fall but most are nuclear-tipped cruise missiles.
Position on first use	<ul style="list-style-type: none"> • The 2010 Nuclear Posture Review stated the fundamental role of nuclear weapons was to deter a nuclear attack on the United States and that the United States will not use or threaten to use nuclear weapons on any state that is party to the NPT and in compliance with its nuclear non-proliferation (NPT) obligations. However, it still reserves the right of first-use. • The 2018 Nuclear Posture Review (NPR) has since expanded the range of significant non-nuclear strategic scenarios in which the US would contemplate nuclear weapons use. For instance, it does not rule out the use of nuclear weapons in response to cyber-attacks.
Modernisations	<ul style="list-style-type: none"> • The 2018 NPR was mainly focused on the task of carrying forward the government's large-scale modernisation programme. Significantly, this NPR differed from the previous one in that it marked a shift away from seeking to reduce the number and role of nuclear weapons. • The US government is aiming to replace or upgrade all nuclear delivery systems and will spend \$494 billion between 2019 and 2028 modernising and maintaining its nuclear forces and the necessary infrastructure. This will include: The production of adaptable warheads which can be used on both ICBMs and SLBMs. • The US plans to introduce a new class (Columbia) of nuclear-powered ballistic missile submarine. The US plans to increase the accuracy of its nuclear weapons to reduce yield. • Full-scale production of approximately 1200 W76-1 warheads for the Trident II (D5) SLBM is well under way, and W76-1 has almost completely replaced the previous W76 warheads. • Production of the B61-12 guided nuclear gravity bomb is scheduled to be complete by 2025. • The Air Force has begun the development of the next generation long-range strike bomber (B-21 Raider), which is due to enter into service in the mid-2020s. • Development has begun of a controversial new nuclear air-launched cruise missile (Long-Range Standoff Missile) which is to be deployed from 2030. • A replacement for the Minuteman missiles has begun to be developed. This is the Ground Based Strategic Deterrent (GBSD), scheduled for replacement of Minuteman in 2028. This will include 642 missiles, with 400 deployed. • An upgrade to the command and control systems at the US Department of Defense is planned.

Disarmament initiatives	<ul style="list-style-type: none"> • The US officially withdrew from the Intermediate-range Nuclear Forces (INF) treaty in August 2019, followed by Russia a few days later. The collapse of this agreement, signed in 1987 and which eliminated thousands of missiles, may threaten future cooperation on disarmament initiatives. • The New START treaty was signed and came into force in 2011 between the US and Russia and was implemented in February 2018. This has resulted in modest reductions in US and Russian deployed strategic nuclear forces. • The treaty aims to ensure that both the US and Russia reduce deployed missiles and bombers to 700, deployed warheads to 1550 and deployed and non-deployed launchers to 800. This would be an over-all reduction of approximately half of the quantities recorded at the beginning of the first START treaty in 1994. • The treaty allows for satellite and remote monitoring, as well as 18 inspections per year to verify limits. • In 2017 the number of missile launch tubes on submarines was reduced from 24 to 20 on each submarine to comply with the New START treaty. • The New START treaty was renewed in 2021 for another five years.
Nuclear Non-Proliferation Treaty (NPT) Status	<ul style="list-style-type: none"> • Signed and ratified
Comprehensive Test Ban-Treaty	<ul style="list-style-type: none"> • Signed but not ratified
Treaty on the Prohibition of Nuclear Weapons	<ul style="list-style-type: none"> • Neither signed nor ratified

Russia	
Number of nuclear warheads	<p>6,375</p> <ul style="list-style-type: none"> • 4,315 in the stockpile (1,570 deployed) • 2,060 warheads have been retired and are awaiting dismantlement
Nuclear weapon system details	<p>Submarines</p> <ul style="list-style-type: none"> • 10 operational nuclear-equipped submarines, 7 of which are Soviet era and 3 of new class - which will gradually replace the former <p>Land based</p> <ul style="list-style-type: none"> • 302 intercontinental ballistic missiles of which there are 7 different types, capable of carrying 1,136 warheads. <p>Aircraft</p> <ul style="list-style-type: none"> • Strategic bombers of which 68 are deployed (Bear-H6, Bear-H16 and Blackjack) with free-fall bombs or nuclear-tipped cruise missiles. Some may not be fully operational. • Russia also possesses various non-strategic capabilities including depth bombs, torpedoes and sea-launched nuclear-capable cruise missiles. Currently all non-strategic nuclear warheads are in storage according to the Russian government.
Position on first use	<ul style="list-style-type: none"> • In June 2020 the Russian government published, for the first time, an updated version of the previously classified Foundations of State Policy in the Area of Nuclear Deterrence. The document maintains that the use of nuclear weapons will be as a last resort. It does not advocate 'first use' but neither does it rule it out either.

Modernisations	<ul style="list-style-type: none"> • Four more Borei class SSBNs are under construction and are expected to enter into service in the next decade. The modernisation of air bombers is underway, although progress is slower than planned. The upgraded bombers are capable of carrying the new AS-23B nuclear air-launched cruise missiles. • Approximately two-thirds of the country's Intercontinental ballistic missiles have now been upgraded, with all remaining Soviet era ones to be withdrawn by 2024. The focus is now on developing multiple warhead versions of these missiles. • There has been the modernisation of defensive systems and the fielding of a nuclear version of the new long-range land attack Kalibr Sea launch cruise missile.
Disarmament initiatives	<ul style="list-style-type: none"> • Russia officially withdrew from the Intermediate-range Nuclear Forces (INF) treaty in August 2019, following the US decision to do so earlier in the year. The collapse of this agreement, signed in 1987 and which eliminated thousands of missiles, may threaten future cooperation on disarmament initiatives. • The New START treaty was signed and came into force in 2011 between the US and Russia and was implemented in February 2018. This has resulted in modest reductions in US and Russian deployed strategic nuclear forces. • The treaty aims to ensure that both the US and Russia reduce deployed missiles and bombers to 700, deployed warheads to 1550 and deployed and non-deployed launchers to 800. This would be an over-all reduction of approximately half of the quantities recorded at the beginning of the first START treaty in 1994. • The treaty allows for satellite and remote monitoring, as well as 18 inspections per year to verify limits. • The New START treaty was renewed in 2021 for another five years..
Nuclear Non-Proliferation Treaty	<ul style="list-style-type: none"> • Signed and ratified
Comprehensive Test Ban-Treaty	<ul style="list-style-type: none"> • Signed and ratified
Treaty on the Prohibition of Nuclear Weapons	<ul style="list-style-type: none"> • Neither signed nor ratified

France	
Number of nuclear warheads	290
Nuclear weapon system details	<p>Submarines</p> <ul style="list-style-type: none"> • The Navy is responsible for the majority of France’s nuclear arsenal – around 80%. • Four Triomphant class SSBNs, each equipped with 16 intercontinental ballistic missiles. All carry M51 missiles. <p>Aircraft</p> <ul style="list-style-type: none"> • Two squadrons of 40 Rafale BF3 aircraft. • Rafale aircraft equipped with the extended-range medium-range air-to-surface cruise missiles (ASMP-As) and the TNA warhead.
Position on first use	<ul style="list-style-type: none"> • France says it will use nuclear weapons against either nuclear or non-nuclear states in the case of invasion or other attack against their territory or against one of their allies.
Modernisations	<ul style="list-style-type: none"> • French President Emmanuel Macron reaffirmed the government’s commitment to the long-term modernisation of France’s nuclear forces in 2018 in a speech in 2020. • Design work has begun on the M51.3 missile for future use on the SLBMs, expected to be operational by 2025. • Preliminary work has begun to develop a third-generation SSBN to be operational by 2035. Work is expected to start on the SNLE 3G in 2023. • A mid-life refurbishment programme for the nuclear-tipped cruise missiles has begun. • Research has begun on a successor air to surface nuclear missile (ASN-4G), which is expected to enter into service in 2035.
Disarmament Initiatives	N/A
Nuclear Non-Proliferation Treaty	<ul style="list-style-type: none"> • Signed and ratified
Comprehensive Test Ban-Treaty	<ul style="list-style-type: none"> • Signed and ratified
Treaty on the Prohibition of Nuclear Weapons	<ul style="list-style-type: none"> • Neither signed nor ratified

China	
Number of nuclear warheads	320
Nuclear weapon system details	<p>Submarines</p> <ul style="list-style-type: none"> • One (Xia class SSBN) with 12 intermediate range ballistic missiles (JL-1) each with one nuclear warhead (but sub not thought to be fully operational) • The Jin class SSBN is believed to be active, although it is not confirmed whether patrols have begun. Four of these are equipped with 12 JL-2 SLBM, with another two awaiting entry into service. <p>Land-based</p> <ul style="list-style-type: none"> • China's ground-launched capabilities include intercontinental, intermediate and medium range ballistic missiles. • The inventory consists of 240 missiles of seven types. <p>Aircraft:</p> <ul style="list-style-type: none"> • China publicly revealed the H-6N as its first long-range bomber in 2019.
Position on first use	<ul style="list-style-type: none"> • China has a long-standing no first use policy..
Modernisations	<ul style="list-style-type: none"> • China is replacing ageing silo-based, liquid-fuelled missiles with newer mobile and solid-fuelled models. • The Navy has commissioned four Type 094 nuclear-powered ballistic missile submarines have been commissioned, with a further two under construction. • Construction on a next generation SSBN (Type 096) is likely to begin in early 2020s.
Disarmament initiatives	N/A
Nuclear Non-Proliferation Treaty	<ul style="list-style-type: none"> • Signed and ratified
Comprehensive Test Ban-Treaty	<ul style="list-style-type: none"> • Signed but not ratified
Treaty on the Prohibition of Nuclear Weapons	<ul style="list-style-type: none"> • Neither signed nor ratified

United Kingdom	
Number of nuclear warheads	195-215 <ul style="list-style-type: none"> • 120 operationally available.
Nuclear weapon system details	Submarines: Four (Vanguard class SSBNs) each carrying up to eight Trident II (D-5) intercontinental ballistic missiles ('lease-purchased' from the US pool of Trident missiles). There are up to five nuclear warheads on each missile.
Position on first use	<ul style="list-style-type: none"> • In line with its NATO membership, the UK has a first use policy.
Modernisations	<ul style="list-style-type: none"> • The government has started replacing the four Vanguard class SSBNs which will reach the end of their service life in 2032. • The new submarines named 'Dreadnought' are to be equipped with modified Trident II (D5LE) SLBMs with 12 missile tubes. These are expected to enter into service in the 2030s. • It was revealed in 2020 that work has begun on a warhead replacement programme.
Disarmament initiatives	<ul style="list-style-type: none"> • Current nuclear stockpile will decrease to no more than 180 by the mid-2020s
Nuclear Non-Proliferation Treaty	<ul style="list-style-type: none"> • Signed and ratified
Comprehensive Test Ban-Treaty	<ul style="list-style-type: none"> • Signed and ratified
Treaty on the Prohibition of Nuclear Weapons	<ul style="list-style-type: none"> • Neither signed nor ratified

Israel	
Number of nuclear warheads	90 (The Israeli government still refuses to publicly confirm or deny that it has nuclear weapons) Nuclear Weapon System details
Nuclear weapon system details	Submarines: Israel operates five Dolphin and Dolphin-2 class submarines, some or all of which are thought to be equipped with nuclear-armed cruise missiles. Land-based: Israel is believed to have 50 warheads for delivery by missiles of both intermediate and intercontinental ballistic missiles range (Jericho II & Jericho III). The operational status of these is unknown. Aircraft: Israel possesses several aircrafts that are nuclear capable, including the F-15 and F-16. It is believed that approximately 30 gravity bombs are assigned to the F-16.
Position on first use	Not stated
Modernisations	<ul style="list-style-type: none"> • An Israeli test of an unspecified rocket propulsion system in 2019 has led to speculation that a Jericho IV missile is being developed.
Disarmament initiatives	N/A
Nuclear Non-Proliferation Treaty	<ul style="list-style-type: none"> • Not signed
Comprehensive Test Ban-Treaty	<ul style="list-style-type: none"> • Signed but not ratified
Treaty on the Prohibition of Nuclear Weapons	<ul style="list-style-type: none"> • Neither signed nor ratified

India	
Number of nuclear warheads	150
Nuclear weapon system details	<p>Land based</p> <ul style="list-style-type: none"> • Nuclear capable ballistic missiles - short range (Prithvi I and Agni I) and medium range (Agni II). • India also possesses Agni III longer range missile, but these are seldom deployed. <p>Aircraft</p> <ul style="list-style-type: none"> • 48 free-fall nuclear bombs believed to be assigned to Mirage 2000H Vajra and Jaguar IS Shamsheer. <p>Sea-based</p> <ul style="list-style-type: none"> • Dhanush missile – this is launched from a surface ship and is likely to be retired from service soon. • First SSBN INS Arihant completed its first patrol in 2018. • Second SSBN INS Arighat was launched in 2017 and is expected to be commissioned in 2021. • Construction work has begun on a third and fourth submarine, with expected launch dates of 2020 and 2022.
Position on first use	<ul style="list-style-type: none"> • India has a policy of no first use.
Modernisations	<ul style="list-style-type: none"> • Agni IV and Agni V (India's first intercontinental ballistic missile) are being tested. • Agni VI is in the Early stages of development. • India tested a hypersonic cruise missile in 2020, announcing it would conduct a further three tests in the next five years. • There are plans to build 6 fast breeder reactors by 2039, which would increase India's capability to produce plutonium-based nuclear weapons. • Uranium enrichment capabilities are being expanded. • India is building a further two Arihant class SSBNs, with expected launch dates of 2020 and 2022. • Development on the longer-range K-5 and K-6 SLBM has begun. • India has agreed to purchase 36 Rafale aircraft from France, which could be adapted for nuclear use. These are scheduled for delivery in 2021-22.
Disarmament initiatives	N/A
Nuclear Non-Proliferation Treaty	<ul style="list-style-type: none"> • Neither signed nor ratified
Comprehensive Test Ban-Treaty	<ul style="list-style-type: none"> • Neither signed nor ratified
Treaty on the Prohibition of Nuclear Weapons	<ul style="list-style-type: none"> • Neither signed nor ratified

Pakistan	
Number of nuclear warheads	160 It is widely believed that in peacetime, Pakistan stores its nuclear weapons separate from their delivery vehicles. This might even be in a disassembled form.
Nuclear weapon system details	<p>Land-based</p> <ul style="list-style-type: none"> • Short range ballistic missiles (Ghaznavi, Shaheen-I, Abdali, Nasr) and medium range ballistic missiles (Ghauri and Shaheen II) <p>Aircraft</p> <ul style="list-style-type: none"> • There are unconfirmed reports that Pakistan has modified F-16 aircraft for nuclear weapon use. • It is likely that Mirage III and V have nuclear delivery roles. <p>Sea-based</p> <ul style="list-style-type: none"> • The test launch of submarine-launched cruise missile (SLCM) Babur-3 has been successful and consequently deployed. These are most likely deployed on Pakistan Navy Agosta submarines. • It is unclear whether Pakistan has controlled infrastructure to manage a submarine-based nuclear force.
Position on first use	<ul style="list-style-type: none"> • While Pakistan has a policy of no first use against non-nuclear states, it refuses to do likewise with nuclear states, specifically in regards to India.
Modernisations	<ul style="list-style-type: none"> • The Shaheen ballistic missile is being upgraded to make it intermediate-range (Shaheen- IA) • A longer-range missile (Shaheen-III) is currently in development and is expected to enter into service in 2022. • Short-range ground cruise missiles are being developed. The Babur-2 (improvement on Babur) cruise missile has completed successful tests. • A short-range nuclear-capable cruise missile is being developed (Ra'ad). This is to be launched from an aircraft. Ra'ad has been flight tested and Ra'ad-2 is being developed. Pakistan claims that these can carry conventional or nuclear warheads. • Pakistan is increasing its military fissile material holdings, of both enriched uranium and plutonium. Pakistan is also increasing its capacity to reprocess spent nuclear fuel. • Pakistan is in the process of acquiring JF-17 aircraft to replace its Mirage aircraft, however it is unclear whether it will have nuclear delivery capabilities. • Development of a new MRBM (Abadeel) which is nuclear capable has begun. This can deliver multiple warheads.
Disarmament initiatives	N/A
Nuclear Non-Proliferation Treaty	<ul style="list-style-type: none"> • Neither signed nor ratified
Comprehensive Test Ban-Treaty	<ul style="list-style-type: none"> • Neither signed nor ratified
Treaty on the Prohibition of Nuclear Weapons	<ul style="list-style-type: none"> • Neither signed nor ratified

North Korea	
Number of nuclear warheads	<ul style="list-style-type: none"> • Estimates suggest North Korea may have 30-40 nuclear weapons. • North Korea is now believed to be a 'nuclear-capable' state.
Nuclear Weapon System details	<p>Land or air-based missiles (unclear how they will be deployed):</p> <ul style="list-style-type: none"> • Focus is on land-based ballistic missiles, but North Korea has 10 types of short, medium and intermediate systems either deployed or under development. These include: • Nodong – 50 launchers first deployed in 1990. Most likely to be given a nuclear delivery role. Medium range. 5 test launches in 2016, none in 2017. • Hwasong 9 –Test launched with mixed results. • Musudan – Status unclear as previous tests have failed. • Hwasong-12- successful test launches but not yet deployed. • Bukkeukseing-2 –Two successful flight tests in 2017. <p>Intercontinental ballistic missiles:</p> <ul style="list-style-type: none"> • Hwasong-13 – under development. Not yet tested. • Hwasong-14- prototype ICBM, two test launches in 2017 • Hwasong -15 –experts have expressed doubts over the current viability of this missile. • North Korea has also previously successfully launched a satellite into space with three-stage separation. However, analysts state that North Korea has never demonstrated guidance and re-entry capabilities. <p>Sea-based</p> <ul style="list-style-type: none"> • North Korea continues to attempt to develop a successful SLBM. In 2019 it was announced that a new SLBM (Pukguksong-3) had been flight tested. In 2020, a new variant (Pukguksong-4) was on display at a parade. • North Korea has also announced it is building a new ballistic missile submarine.
Position on first use	<ul style="list-style-type: none"> • North Korea has declared it would use its nuclear weapons pre-emptively.
Disarmament initiatives	<ul style="list-style-type: none"> • North Korea and the US held a summit in Singapore in 2018 in which they signed a joint statement pledging lasting peace and the complete denuclearization of the Korean Peninsula. But a second summit in February 2019 was cut short after North Korea rejected the US proposal for the former to completely denuclearise in return to an end to all sanctions. Relations have since deteriorated.
Nuclear Non-Proliferation Treaty	<ul style="list-style-type: none"> • Withdrew from treaty in 2003
Comprehensive Test Ban-Treaty	<ul style="list-style-type: none"> • Neither signed nor ratified
Treaty on the Prohibition of Nuclear Weapons	<ul style="list-style-type: none"> • Neither signed nor ratified



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