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Nuclear weapons states

United States of America	
Number of nuclear warheads	<p>6,450</p> <ul style="list-style-type: none"> • 3,800 nuclear warheads in the military stockpile • 1,750 of these warheads deployed • 2,650 retired and awaiting dismantlement (due to be completed by 2023)
Nuclear weapon system details	<p>Submarines</p> <ul style="list-style-type: none"> • 14 Ohio Class SSBNs with Trident II (D5 or enhanced D5LE) missiles with new Mk-6 guidance system and W76-1 and W88 warheads. • The US also has other submarines (Los Angeles, Improved Los Angeles and Virginia class SSNs) with Tomahawk cruise missiles and W80-0 warheads (non-strategic). <p>Land based</p> <ul style="list-style-type: none"> • 400 Minuteman III intercontinental ballistic missiles with 400 W87 or W78 warheads. <p>Aircraft</p> <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.
Modernisations	<ul style="list-style-type: none"> • The US government plans to spend \$400 billion between 2017 and 2026 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 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.

Disarmament initiatives	<ul style="list-style-type: none"> • 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. • However, the New START treaty is due to expire in 2021 unless both Russia and the US agree to extend it, and neither country has negotiated any further reductions in their deployed strategic nuclear forces beyond those mandated by New START. This is part of the background to the continued deterioration in US-Russia relations. • The US and Russia are in a continued deadlock over Intermediate-Range and Shorter-Range Missiles (INF Treaty) compliance, which may threaten future cooperation on disarmament initiatives.
Nuclear Non-Proliferation Treaty	<ul style="list-style-type: none"> • Signed and ratified
Comprehensive Test	<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>6,850</p> <ul style="list-style-type: none"> • 4,350 in the stockpile (1,600 deployed, 2,750 reserve) • 2,500 warheads have been retired and are awaiting dismantlement • 2800 warheads have been retired and are awaiting dismantlement
Nuclear weapon system details	<p>Submarines</p> <ul style="list-style-type: none"> • 11 nuclear-equipped submarines, 9 of which are Soviet era and 3 of new class (2 Delta III class + 1 is possibly non-operational, 6 Delta IV class, 3 Borei class SSBNs with 16 intercontinental ballistic missiles (missiles can carry from 3-4 warheads) on each submarine. One Kalmar SSBN in reserve. <p>Land based</p> <ul style="list-style-type: none"> • 318 intercontinental ballistic missiles of which there are 7 different types with just under 800 warheads carried (nearly 50 percent of Russia's deployed strategic 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"> • Russia's military doctrine states that Russia reserves the right to use nuclear weapons in a defensive posture and would conduct a retaliatory strike in any circumstances.

Modernisations	<ul style="list-style-type: none"> • There is a possible purchase of 4 more Borei class SSBNs and the continued development of 5 new Borei SSBNs. These are due to enter service 2018-2022. • 98% of Russia’s nuclear deterrent forces will be armed with new weapons by 2020. • The modernization of air bombers is underway, with many due to be upgraded to maintain a bomber force of 50-60 aircraft with new AS-23B nuclear air-launched cruise missiles. • Approximately 60 percent of Intercontinental ballistic missiles were upgraded by the end of 2017, 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"> • 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 is due to expire in 2021 unless both Russia and the US agree to extend it, and neither country has negotiated any further reductions in their deployed strategic nuclear forces beyond those mandated by New START. This is part of the background to the continued deterioration in US-Russia relations. • The US and Russia are in a continued deadlock over Intermediate-Range and Shorter-Range Missiles (INF Treaty) compliance, which may threaten future cooperation on disarmament initiatives.
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	300
Nuclear weapon system details	<p>Submarines</p> <ul style="list-style-type: none"> • 4 <i>Triomphant</i> class SSBNs, each equipped with 16 intercontinental ballistic missiles. All carry M5.1 missiles. <p>Aircraft</p> <ul style="list-style-type: none"> • 54 ASMP-As in arsenal (improved medium range air to surface cruise missile). • 40 warheads carried by 40 land-based aircraft (20 <i>Mirage 2000N</i> and 20 <i>Rafale C F3</i> aircraft). • 10 warheads carried by 10 carrier-based aircraft (<i>Rafale M F3</i>).
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"> • Development has begun on the M51.3 missile for future use on the SLBMs by 2025. • Preliminary work has begun to develop a third-generation SSBN to be operational by 2035. • <i>Mirage 2000Ns</i> are scheduled to be replaced by <i>Rafale B</i> aircraft in 2018. • A mid-life refurbishment programme for the nuclear-tipped cruise missiles is to begin in 2022. • Research has begun on a successor air to surface nuclear missile (ASN-4G). • The Strategic Oceanic Force (FOST) continues to be modernised. • The SSBN fleet is to be equipped with the longer-range version of the M51.2 missile by 2020.
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	280 <ul style="list-style-type: none"> • 1600 operational strategic warheads, 2300 strategic warheads assigned and 2000 assigned non-strategic warheads (according to the Russian government these are all in storage). • 3700 warheads have been retired and are awaiting dismantlement.
Nuclear weapon system details	<p>Submarines</p> <ul style="list-style-type: none"> • 1 (Xia class SSBN) with 12 intermediate range ballistic missiles (JL-1) each with one nuclear warhead (but sub not thought to be fully operational). <p>Land-based</p> <ul style="list-style-type: none"> • Intercontinental, intermediate and medium range ballistic missiles. • Consists of 140 missiles of seven types. • 75-100 intercontinental ballistic missiles deployed in 2017. • Small number of ICBMs to deliver nuclear weapons in multiple independently targetable re-entry vehicles. Unclear how many warheads. <p>Aircraft</p> <ul style="list-style-type: none"> • Likely to be H-6 bombers with small number of free-fall bombs or nuclear-tipped cruise missiles (DH-10)

Position on first use	<ul style="list-style-type: none"> • Re-affirmed its no first use policy in 2011
Modernisations	<ul style="list-style-type: none"> • China is modernising its land-based ballistic missiles in order to extend their range to be capable of reaching the US. It is also replacing ageing fuelled missiles with newer road-mobile and solid-fuelled models. • 4 more Shang-class submarines are to enter service, however, it is not clear whether these would be armed with nuclear weapon capabilities. • 4 type 094 nuclear powered ballistic missile submarines have been commissioned with a 5th possibly under construction. • It is likely construction of a next generation SSBN (096) is 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	<p>215</p> <ul style="list-style-type: none"> • 120 operationally available.
Nuclear weapon system details	<p>Submarines</p> <ul style="list-style-type: none"> • 4 (Vanguard class SSBNs) each carrying up to 8 Trident II (D-5) intercontinental ballistic missiles ('lease-purchased' from the US pool of Trident missiles). There are up to 5 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 2030.
Disarmament initiatives	<ul style="list-style-type: none"> • Current nuclear stockpile will decrease from 215 to no more than 180 by 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	<p>80</p> <ul style="list-style-type: none"> • (The Israeli government still refuses to confirm or deny that they have nuclear weapons)
Nuclear weapon system details	<p>Submarines</p> <ul style="list-style-type: none"> • 3 (Dolphin class) thought to be equipped with cruise missile. Rumours persist Israel may be equipping its current fleet with nuclear-armed sea launched cruise missiles. • Israel possesses 6 Dolphin class submarines in total, 5 of which are in Israel with the last to be delivered by the end of 2019. <p>Land-based</p> <ul style="list-style-type: none"> • Israel is believed to have 50 nuclear capable missiles of both intermediate and intercontinental ballistic missiles range (Jericho II & Jericho III). The operational status of these is unknown. <p>Aircraft</p> <ul style="list-style-type: none"> • F-16, delivery of approximately 30 gravity bombs.
Position on first use	Not stated
Modernisations	<ul style="list-style-type: none"> • There is the possibility that Israel is arming its 3 dolphin class submarines with nuclear weapons capabilities. • Israel is potentially using ageing heavy water reactor to produce tritium. • The German government is to subsidise 3 new submarines to replace Israel's first 3 from the 1990s. These are due to enter into service from 2027.
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	130-140
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). Agni II is having technical difficulties. • India also possesses Agni III longer range missile, but these are seldom deployed. <p>Aircraft</p> <ul style="list-style-type: none"> • Mirage 2000H Vajra and possibly Jaguar IS Shamsher with free-fall bombs. <p>Sea-based</p> <ul style="list-style-type: none"> • Dhanush missile – this is launched from a surface ship and has been inducted into service. • First SSBN INS Arihant was formally commissioned in 2016, but due to damage it is out of service (will carry up to 7 B05 missiles). • Second SSBN INS Arighat was launched in 2017 (unconfirmed reports state it will carry up to 24 K-15 missiles).
Position on first use	<ul style="list-style-type: none"> • In April 2013 Shyam Saran, convener of the National Security Advisory Board, affirmed that in the event of a nuclear attack against India, it will retaliate.
Modernisations	<ul style="list-style-type: none"> • Agni IV, a variant of Agni II has been tested and is ready for serial production. • Agni V is being developed and would be able to strike targets throughout China. It has improved readiness capabilities. • Agni VI is in the design phase. • India is developing a longer-range submarine-launched ballistic missile (SLBM). A test was confirmed in 2014. • Construction of a naval base for the Arihant submarines has started. • There are plans to build 6 fast breeder reactors by the 2030s, which would increase India's capability to produce plutonium-based nuclear weapons. • Uranium enrichment capabilities have been expanded. • India is building a fleet of up to 5 nuclear powered SSBNs – the construction of a 3rd and 4th submarine is to be launch in 2020 and 2022. • Development of the K-4 missile to replace K-15 has begun, as well as the K-5 SLBM. There are plans for a longer range K-6 SLBM. • Development of a long-range subsonic cruise missiles to be deployed by ground, sea and air has begun. These are currently having technical problems but there have been successful test flights. It is uncertain whether these will carry nuclear 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

Pakistan	
Number of nuclear warheads	140-150 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	Land-based <ul style="list-style-type: none"> • Short range ballistic missiles (Ghaznavi, Shaheen-I, Abdali, Nasr) and medium range ballistic missiles (Ghauri and Shaheen II) Aircraft <ul style="list-style-type: none"> • F-16, A-5 or Mirage V) with free-fall bombs. Sea-based <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
Position on first use	<ul style="list-style-type: none"> • Pakistan refuses to have a 'no first use' policy stating it would use nuclear weapons even if India did not use them against it.
Modernisations	<ul style="list-style-type: none"> • The shaheen ballistic missile is being upgraded to make it intermediate-range (shaheen- IA, II and III) • Short-range ground cruise missiles are being developed. The Barbur 2 (improvement on Babur) cruise missile has been test launched. • 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 Thunder aircraft to replace its Mirage aircraft, however it is unclear whether it will have nuclear delivery. • 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 10-20 rudimentary nuclear weapons. In 2013 North Korea claimed to have detonated a miniaturised device, meaning it may now be capable of fitting nuclear warheads on a long-range ballistic missile. • North Korea is believed to be increasing its holdings of weapon-usable plutonium. • North Korea's leader stated in 2018 that the country would begin mass production of nuclear warheads and ballistic missiles. However, there is competing evidence as to whether or not they have produced a nuclear warhead compact enough to be delivered by a ballistic missile.
Nuclear Weapon System details	<ul style="list-style-type: none"> • The overall aim of North Korea's nuclear programme is to develop a nuclear warhead that can be delivered by a long-range missile. The full range of capabilities necessary to do this have not yet been demonstrated. • However, 2017 progressed North Korea's ambition to build an operational Intercontinental ballistic missile (ICBM) at a pace which surprised many experts. The US has predicted that North Korea could produce a reliable nuclear capable ICBM during 2018. <p>Land or air-based missiles (unclear how they will be deployed):</p> <ul style="list-style-type: none"> • Focus is on Intercontinental ballistic missiles, but North Korea has 10 types of short, medium and intermediate systems either deployed or under development. These include: <ul style="list-style-type: none"> o 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. o Hwasong 9 –Test launched with mixed results. o Musudan – under development, not test launch yet. o Hwasong-12- successful test launch in 2017 over Japan following 3 failures. o Bukkeukseing-2 – land based version of the SLBM, 1000km plus range. Two successful flight tests in 2017. • Intercontinental ballistic missiles: <ul style="list-style-type: none"> o Hwasong-13 – under development. Not launched yet. o Hwasong 14- prototype ICBM, two test launches in 2017 o Hwasong -15 – two stage ICBM, flight test showed this to fly higher and longer than any previous North Korean 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 possesses an experimental submarine, but commercial satellite imagery suggests that North Korea is building a new, larger submarine capable of launching a Submarine Launched Ballistic Missile (SLBM) • North Korea is developing a SLBM – (Bukkeukseong-1) –2016 was the first successful underwater test launch from the experimental submarine. 2017 saw several successful underwater ejection tests. • Experts believe North Korea has numerous technical challenges to building successful SLBM.
Position on first use	<ul style="list-style-type: none"> • North Korea has not ruled out nuclear first use to deter a pre-emptive strike or invasion. If the country were to detect an imminent US or other attack, it would use nuclear weapons on military installations in East Asia and Guam. This tactic is used as a defensive strategy.
Disarmament initiatives	<ul style="list-style-type: none"> • On June 12th 2018, North Korea and the US held a summit in Singapore in which they signed a joint statement pledging lasting peace and the complete denuclearization of the Korean Peninsula. It is expected that a second summit will be held in the near future. • On September 18th - 20th 2018, North and South Korea held a summit in which they signed a joint declaration to achieve denuclearization. North Korea has pledged to shut down a missile test site, allow international inspectors into North Korea and to dismantle its nuclear site if the US demonstrates 'corresponding measures'.

North Korea	
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

