50 Facts About U.S. Nuclear Weapons Today

REPORT

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Their number and role in U.S. security have been reduced, but nuclear weapons still provide important security benefits to the United States and its allies. While the prospects for moving to lower levels than those in New START now appear limited, the Arms Control and Non-Proliferation Initiative at Brookings put together an updated list of "50 Facts About U.S. Nuclear Weapons," originally published in 1998.

1.2	Yield (in megatons) of the B83 nuclear weapon, which is the largest nuclear weapon currently in the U.S. stockpile.
1.24	Shortest range (in miles) of a U.S. nuclear shell. Known as the "Davy Crockett," the W54 weapon, a small nuclear

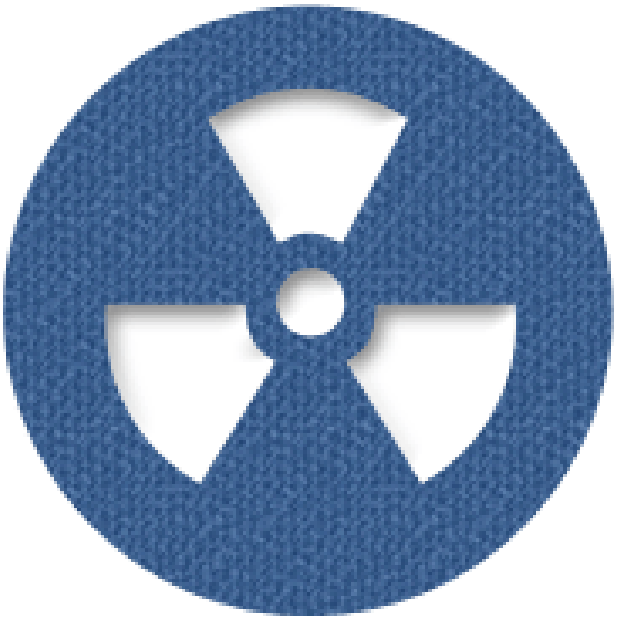
	warhead with a weight of 51 pounds, was fired by a recoilless gun mounted on a jeep.

Number of U.S. nuclear weapons used in wartime, against Hiroshima on August 6, 1945 and Nagasaki on August 9, 1945.

Answer: **2**

2	Number of Mark 39 hydrogen bombs that were accidently released in 1961 from a U.S. Air Force B-52 that broke up in midair over Goldsboro, North Carolina. Neither bomb detonated, but each had a yield of 3.8 megatons; the detonation

	of one would have been some 260 times more powerful than the weapon dropped on Hiroshima.
5	Number of states that are home to Minuteman III missile launch sites (Colorado, Montana, Nebraska, North Dakota and Wyoming).
5	Number of formally recognized nuclear weapons states under the 1968 Nuclear Non-Proliferation Treaty: the United States, Russia, United Kingdom, France and China.
5	Number of countries believed to host U.S. non-strategic nuclear weapons: Belgium, Germany, Italy, the Netherlands and Turkey.[1]
7	Number of nuclear weapon types in the current U.S. arsenal: W76 and W88 warheads for submarine-launched ballistic missiles (SLBMs); W78 and W87 warheads for intercontinental ballistic missiles (ICBMs); W80 warheads for the air-launched cruise missile (ALCM); and B61 (multiple variants) and B83 gravity bombs. Under the "3+2" plan, it is proposed over time to reduce the warhead types to three warheads for ballistic missiles, one gravity bomb (B61) and one warhead for ACLMs.



Amount (in kilograms) of plutonium needed for a nuclear weapon, as estimated by the International Atomic Energy Agency (IAEA).[2]

Answer: **8**

10	Number of Minuteman III ICBMs controlled by a launch crew.
10.4	Yield (measured in megatons of TNT) of "Mike," the first U.S. hydrogen device, detonated at Eniwetok Atoll, the Marshall Islands, on November 1, 1952.

11	Number of U.S. nuclear bombs lost in accidents and never recovered.[3]
12	Estimated amount of time (in minutes) that the president would have to make a decision regarding the launch of U.S. ICBMs if he wanted to exercise a launch-under-attack option.[4]
14	Number of Ohio-class ballistic missile submarines maintained by the U.S. Navy. Typically, at any one time two of these submarines are in long-term overhaul, meaning that 12 are normally operationally available. Four other submarines of the Ohio-class have been converted to carry conventionally-armed cruise missiles in place of SLBMs.
20	Yield (in kilotons of TNT) of the first U.S. nuclear weapons test, "Trinity," conducted at Alamogordo, New Mexico on July 16, 1945.
24	Number of launch tubes on an Ohio-class ballistic missile submarine. Under the New START Treaty, four tubes on each submarine will be converted so that they are incapable of launching an SLBM and thus will not be counted against the treaty's limit of 800 deployed and non-deployed ICBM and SLBM launchers plus deployed and non-deployed

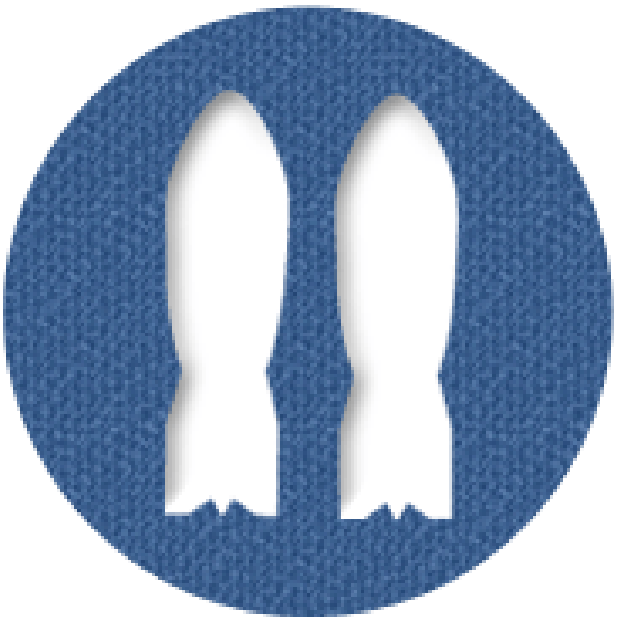
	nuclear-capable bombers. The U.S. Navy plans that the Ohio-class submarine's replacement will have 16 launch tubes.
25	Amount (in kilograms) of highly-enriched uranium needed for a nuclear weapon, as estimated by the IAEA.[5]
28	Number of "deterrence patrols" conducted by Ohio-class ballistic missile submarines in 2012, ten by submarines based at King's Bay, Georgia and 18 by submarines based at Bangor, Washington. The patrols last on average 70 days.
31	Number of countries to which the United States formally extends its "nuclear umbrella" (North Atlantic Treaty Organization states, Japan, South Korea and Australia).
94	Number of nuclear-capable heavy bombers maintained by the United States. This includes B-2 and B-52 bombers.

Number of nuclear reactors in the United States.

Answer: **104**

200	Estimated number of U.S. B61 nuclear gravity bombs deployed forward at bases in Europe for possible use by U.S. and NATO-allied air forces.[6]
450	Number of deployed Minuteman III ICBMs maintained by the United States. Under the New START Treaty, the U.S. Air Force plans to reduce the number of deployed Minuteman III ICBMs to 400-to-420.7

455	Yield (measured in kilotons of TNT) of the largest ballistic missile warhead currently in the U.S. stockpile: the W88 carried by the Trident II SLBM.[8]
700	New START Treaty limit on deployed strategic delivery vehicles—deployed ICBMs, SLBMs and nuclear-capable bombers. This limit takes effect in February 2018.
778	Number of U.S. deployed ICBMs, SLBMs and nuclear-capable bombers as of March 1, 2014 (the New START limit is 700).[9]
800	New START Treaty limit on deployed and non-deployed ICBM and SLBM launchers plus deployed and non-deployed nuclear-capable bombers. This limit takes effect in February 2018.
950	Peak number of U.S. nuclear weapons stationed in South Korea during the Cold War.
952	Number of U.S. deployed and non-deployed ICBM and SLBM launchers plus number of U.S. deployed and non-deployed nuclear-capable bombers as of March 1, 2014 (the New START limit is 800).[10]



Number of nuclear tests conducted by the United States before its last test on September 23, 1992.[11]

Answer: **1,030**

1,550	New START Treaty limit on deployed strategic warheads, which counts the actual number of warheads on deployed ICBMs and SLBMs plus one warhead for each deployed nuclear-capable bomber. This limit takes effect in February 2018.
1,585	Number of warheads on deployed U.S. ICBMs and SLBMs plus number of warheads counted for

	deployed U.S. nuclear-capable bombers as of March 1, 2014 (the New START limit is 1,550).[12]
1,800-1,850	Estimated number of warheads on deployed U.S. ICBMs and SLBMs plus the number of nuclear bombs and air-launched cruise missiles at bases for deployed U.S. nuclear-capable bombers once the United States reaches the New START limit of 1,550 deployed warheads. The difference reflects the fact that, while New START counts all warheads on deployed ICBMs and SLBMs, it only attributes each deployed nuclear-capable bomber as one warhead, when the bombers can carry many more.
2,700	Estimated number of U.S. nuclear weapons that have been retired from the stockpile and are awaiting dismantlement. There is a significant backlog in dismantling weapons.[13]
3,200	Number of U.S. non-strategic nuclear weapons deployed forward in the Pacific region—Okinawa, South Korea, Guam, the Philippines and Taiwan—at their peak in 1967. The number began to decline after 1967, falling to 1,200 by 1977. The last

	forward-deployed nuclear weapons in the Pacific region were withdrawn in 1991.[14]
4,650	Estimated total number of nuclear weapons—strategic and non-strategic, deployed and non-deployed—in the U.S. nuclear stockpile as of January 2014 (does not count an additional 2,700 retired weapons that await dismantlement).[15]
4,804	Total number of nuclear weapons—strategic and non-strategic, deployed and non-deployed—in the U.S. nuclear stockpile as of September 30, 2013 (does not count retired weapons that await dismantlement). The 4,804 figure includes active warheads in an "operational, ready-for-use configuration" and inactive warheads which are maintained in "non-operational status."[16]
5,500	Range threshold (in kilometers) for an intercontinental ballistic missile, as defined in the New START Treaty.
7,304	Total number of U.S. non-strategic nuclear weapons deployed forward in Europe at their peak in 1971.[17]

8,850	Weight (in pounds) of the heaviest nuclear weapon in the post-Cold War U.S. stockpile.[18] The B53 was put into service in 1962, and though the bombs were removed from the active stockpile in 1997, they were not completely disassembled until 2011. The weapon was roughly the size of a minivan, and had a potential yield of nine megatons.
15,000	Approximate maximum speed (in miles per hour) of the Minuteman III.[19]
31,255	Total number of nuclear weapons in the U.S. nuclear stockpile at its peak in 1967.
40,159	Total number of nuclear weapons in the Soviet nuclear stockpile at its peak in 1986.[20]
79,432	Weight (in pounds) of a Minuteman III ICBM.[21]
130,000	Weight (in pounds) of a Trident II (D5) SLBM.

Dollar cost, per weapon, of the planned B61 Life Extension Program.[22]

Answer: **25 mill.**

10 bill.	Estimate (in dollars) by the Department of Defense for the B61 Life Extension Program.
16 bill.	Department of Defense estimate of annual cost of the U.S. nuclear deterrent, including command and control system.[23] Other estimates place the cost considerably higher, in the range of $30-35 billion per year.

355 bill.	Congressional Budget Office's projected cost in dollars of U.S. nuclear forces from 2014 to 2023.[24]
1 trill.	Estimated cost, in USD, of the modernization plan for the current U.S. nuclear arsenal, including operating costs, life extension programs for nuclear weapons and procurement of new delivery systems to replace aging elements of the strategic triad.[25]

FOOTNOTES

1 Hans M. Kristensen and Robert S. Norris, "U.S. Nuclear Forces, 2014," *Bulletin of the Atomic Scientists*, 70, no. 2 (January 2014), p. 92.
2 Joseph Cirincione, Jon Wolfsthal and Miriam Rajkumar, *Deadly Arsenals: Nuclear Biological, and Chemical Threats* (Carnegie Endowment of International Peace, 2005), 47.
3 U.S. Department of Defense; Center for Defense Information; Greenpeace; "Lost Bombs," Atwood-Keeney Productions, Inc., 1997.
4 Bruce Blair, "De-alerting Strategic Forces," in *Reykjavik Revisited: Steps Toward a World Free of Nuclear Weapons* edited by George P. Shultz, Steven P. Andreasen, Sidney D. Drell and James E. Goodby, p. 176.
5 Cirincione et al., *Deadly Arsenals: Nuclear Biological, and Chemical Threats*, p. 47.
6 Kristensen and Norris, "U.S. Nuclear Forces, 2014," p. 92.
7 Amy F. Woolf, "U.S. Strategic Nuclear Forces: Background, Developments, and Issues," Congressional Research Service (October 2013), p. 8.
8 Kristensen and Norris, "U.S. Nuclear Forces, 2014," p. 86.
9 Department of State, Bureau of Arms Control, Verification and Compliance fact sheet, "New START Treaty Aggregate Numbers of Strategic Offensive Arms," April 1, 2014.
10 "New START Treaty Aggregate Numbers of Strategic Offensive Arms."
11 Cirincione et al., *Deadly Arsenals: Nuclear Biological, and Chemical Threats*, p. 203.
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13 Kristensen and Norris, "U.S. Nuclear Forces, 2014," p. 86.

14 Robert S. Norris, William M. Arkin and William Burr, "Where They Were," Bulletin of the Atomic Scientists, November/December 1999, pp. 30-31.
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16 Department of Defense fact sheet, "Increasing Transparency in the U.S. Nuclear Weapons Stockpile," released May 13, 2010.
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18 Cochran, Thomas B. (1989), "U.S. Nuclear Stockpile," Nuclear Weapons Databook: United States Nuclear Forces and Capabilities, Ballinger Pub Co., pp. 58–59.
19 Federation of American Scientists, "LGM-30 Minuteman III."
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21 Federation of American Scientists, "LGM-30 Minuteman III."
22 Kingston Reif and Usha Sahay, "Fact Sheet: The B61 Life Extension Program," Center for Arms Control and Non-Proliferation, August 2, 2013.
23 Department of Defense, "Remarks by Deputy Secretary of Defense Carter at Aspen Security Forum in Aspen, Colorado," July 18, 2013.
24 Congressional Budget Office, "Projected Costs of U.S. Nuclear Forces, 2014 to 2023," December 2013.
25 Jon B. Wolfsthal, Jeffery Lewis and Marc Quint, "The Trillion Dollar Nuclear Triad," *Center for Nonproliferation Studies*, January 2014.

SOURCE: https://www.brookings.edu/research/50-facts-about-u-s-nuclear-weapons-today/