United States Nuclear Arsenal

Ballistic Missile Systems

Name	Year Deployed	Maximum Range (km)	Missile Total	Warhead Yield (kt)	Notes
Land-based Ballistic Missiles					
LGM-30G Minuteman III Mk 12 (MIRV)	1970	13,000	50	300 x 2 Multiple independently target re-entry vehicles (MIRV)	W62 (170 kt yield) warhead is currently being replaced with the W87/Mk-21 (300 kt yield); expected completion in 2010
LGM-30G Minuteman III Mk 12A	1979	11,300	300	335 x 1 MIRV	W78 warhead; will be converted to single warhead version by end of 2007; ~500 total warheads between the two Minuteman types
LGM-118 MX/Peacekeeper	1986 (Retired in 2006)	9,600-11,000	0	300 x 10 MIRV	W87 warhead; all operational MX withdrawn in 2006
SLBMs					
Name	**Year Deployed**	**Maximum Range (km)**	**Missile Total**	**Warhead Yield (kt)**	**Notes**

UGM-96A Trident I C-4	1979 (Retired in 2005)	7,400	0	100 x 6 MIRV	Trident II D-5 replaced Trident I C-4 by 2006; 288 active warheads
UGM-133A Trident II D-5 Mk-4	1992	12,000	224*	100 x 6 MIRV	The total number of Trident II D-5 Mk-4 warheads is currently approximately 1632 with 80 spares; New MC4700 fuzing with ground burst capability
UGM-133A Trident II D-5 Mk-5	1990	12,000	224*	455 x 6 MIRV	W88 warhead; 384 active warheads/ 20 spares; 108 new D5s to be deployed in 2013

Other Delivery Platforms

Aircraft					
Name	**Year Deployed**	**Maximum Range (km)**	**Platform Total**	**Weapons**	**Notes**
B-52H Stratofortress	1961	16,000	94	20 ALCM/ W-80 or ACM/ W-80 – 5 x 150 (slated for retirement)	Bombs on 56 bombers: Ratios of bombs to RVs are 1000/30 or 400/20
B-2A Spirit	1993	12,000	20	16 B61-7 (360 kt), B61-11 “bunker-buster”, or B83	-

				bombs (1.2 Mt)	
Submarines					
Name	**Year Deployed**		**Platform Total**	**Weapons**	**Notes**
Ohio class	1981		14 (10 projected)	24 UGM-96A Trident I C-4 or UGM-133A Trident II D-5 SLBMs	Four of the current 14 *Ohio* class are being converted into SSGNs (see text).

Other Strategic Nuclear Weapons

Name	**Type**	**Year Deployed**	**Max Range (km)**	**Total Units**	**Warhead Yield (kt)**	**Notes**
B61 Mod-7	Gravity bomb	1967	-	750	10-500	Carried on B-2A Spirit
B61 Mod-11	Earth penetrating gravity bomb	1997	-	Unknown	0.3-180	Carried on B-2A Spirit and others
B83	Gravity bomb	1984	-	650	1,000-2,000	Carried on B-2A Spirit
BGM-109A Tomahawk**	Sea-launched cruise missile (SLCM)	1984	2,500	325	1 W80 – 0 x 5 - 200	W80-0 warhead; Carried on *Los Angeles*-class submarines and some surface ships
AGM-86B**	ALCM	1982	2,500	950	200	W80.1 warhead; Carried on B-52H Stratofortress

AGM-129A ACM**	ALCM	1991	3,000	460	200	W80.1 warhead; Carried on B-52H Stratofortress

*Both Mk-4 and Mk-5 warheads on missiles deployed on 14 submarines

**Because of their subsonic speeds, ALCMs and SLCMs are not always considered strategic weapons. Those that have been included here are noteworthy due to both the size of their yields and their ranges.

Summary of U.S. Nuclear Forces:

As of spring 2007, the U.S. stockpile contains ***approximately 5,736 operational nuclear warheads, including 5,236 strategic and 500 non-strategic warheads.*** *An additional 3,865 warheads are held in "responsive reserve." A few hundred more exist but are slated for dismantlement. Current plans call for the United States to reduce its operationally deployed strategic nuclear arsenal to 1,700 - 2,200 warheads by the end of 2012. The majority of the weapons removed from the arsenal, however, will probably be moved to either a responsive or inactive capacity, rather than dismantled. In addition, the United States has a sizable tactical nuclear weapons arsenal.*

The Strategic Offensive Reductions Treaty (SORT) agreement between the United States and Russia calls for a reduction in Russia's and the United States' strategic nuclear arsenals so that each country will have 1,700-2,200 operationally deployed warheads by the end of 2012.[1] While no specific numbers have been released by the Pentagon, it is likely that 600 W62s, 500 W78s, 1,500 W76s, 1,000 W80-1s, 400 W84s, and 600 B61-10 will be retired in full.[2]

The Department of Energy (DOE) is also pursuing life extension programs for the B61, W76, and W87 warheads under the Stockpile Stewardship Program. Dismantlement and retirement of the Peacekeeper missile fleet was completed in late 2005. Some of the Mark 21 reentry vehicles and W87 warheads that formerly crowned Peacekeepers will be reused in Minuteman IIIs.[3] Guidance and propulsion systems are currently being upgraded, and a program to refurbish the liquid-propulsion stage of the missiles has been planned. Under the Single Reentry Vehicle (SRV) program the 350 missiles with multiple independently targetable re-entry vehicle (MIRV) launchers are being downgraded to a single warhead and will be completed in 2007. The Air Force is decommissioning 50 Minutemen III's of the 500 it currently possesses, for future testing purposes.[4] Work may also begin soon on the next generation of ICBM, the Minuteman IV, though the plan has suffered from congressional funding constraints. Some Peacekeeper missiles will be put into storage, either for space missions or possible future redeployment. The 2002 Nuclear Posture Review (NPR) prescribes the retention of Peacekeeper silos as well.

Currently, the United States bases its Trident SLBMs on 14 Ohio-class submarines armed with approximately 2000 warheads.[5] Two of these submarines are currently being overhauled to carry the Trident II. In late 2005, the Navy replaced all of its Trident C-4 missiles with Trident II D-5 missiles.[6] It is likely that in the context of SORT each Trident II missile will go from being armed with six MIRVs to four, which would accomplish reducing the SLBM arsenal to approximately 1200 warheads. The Reliable Replacement Warhead (RRW) program is currently studying the possibility of replacing the W76 warhead carried by the Trident missiles with a new warhead. In addition, the four oldest Ohio subs are to be converted into cruise missile submarines, or SSBNs, armed with conventional warhead Tomahawks.

The United States currently deploys two classes of aircraft that can carry strategic nuclear weapons, the B-2A Spirit and the B-52H Stratofortress. The B-1B no longer has a nuclear mission, although a plan remains to outfit it for nuclear weapons should the need arise. The B-52 carries 20 AGM-86B air-launched cruise missiles (ALCMs) or AGM-129A Advanced Cruise Missiles (ACMs), both of which are equipped with a single W80 nuclear warhead. The United States has reduced its ACM and ALCM inventories slightly since 2002 and now has 430 of each. The B-2A Spirit is not equipped to carry ALCMs, but can carry the B61-7 and B61-11 earth penetrator, and B83 nuclear bombs.[7]

In 1998, the Pentagon decided to maintain the size of its tactical nuclear arsenal in response to Russia's dependence on its own large tactical arsenal. The nuclear-tipped Tomahawk SLCMs are arguably tactical weapons, and the United States stores 150 tactical nuclear bombs in Europe for NATO use. Some fighter-bombers also maintain a non-strategic nuclear capability.

Strategic Nuclear Weapons: ~5,236

Non-strategic Nuclear Weapons: ~500

Total Nuclear Weapons: ~5,736

Sources:

"5 Minutes to Midnight." *Bulletin of Atomic Scientists*, 63, no. 1,. January/February 2007: 79-82. http://thebulletin.metapress.com/content/91n36687821608un/fulltext.pdf.

"U.S. Nuclear Forces, 2007." *Bulletin of Atomic Scientists,* 63, no. 1., January/February 2007.
http://www.thebulletin.org/issues/nukenotes/mj04nukenote.html.

Cochran, Thomas, Hans M. Kristensen, and Robert S. Norris. "Too Many, Too Slow: The Bush Administration's Stockpile Reduction Plan."
http://www.nrdc.org/nuclear/fstockpile.asp (accessed March 26, 2007).

Federation of American Scientists. “B-2 Spirit.” http://www.fas.org/nuke/guide/usa/bomber/b-2.htm (accessed April 9, 2007)

Federation of American Scientists. “Bombers and Bomber Weapons United States Nuclear Forces Guide.” http://www.fas.org/nuke/guide/usa/bomber/index.html (accessed on March 16, 2007).

Kristensen, Hans M., and Robert S. Norris. “U.S. Nuclear Forces, 2006,” *Bulletin of the Atomic Scientists*, 62, no.1. January/February 2006.

Parsch, Andreas. 2004. “Directory of U.S. Military Rockets and Missiles, AGM/BGM/RGM/UGM-109.” *Designation-Systems.net.* http://www.designation-systems.net/dusrm/m-109.html (accessed April 9, 2007).

Popejoy, Mary. Journalist 1st Class. “USS Alabama Offloads Last of C4 Trident Missiles.” Navy Newstand, Nov. 5, 2005.

Sirak, Michael. “Air Force Prepares To Draw Down Minuteman III Fleet By 50 Missiles.” Defense Daily. April 17, 2007.

Woolf, Amy F. “Nonstrategic Nuclear Weapons.” Congressional Research Service, Order Code RL32572, Jan. 9, 2007. http://www.fas.org/sgp/crs/nuke/RL32572.pdf

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[1] “5 Minutes to Midnight,” *Bulletin of Atomic Scientists*, January/February 2007. 79-82. http://thebulletin.metapress.com/content/91n36687821608un/fulltext.pdf

[2] Ibid; also see, Thomas Cochran, Hans M. Kristensen and Robert S. Norris, “Too Many, Too Slow: The Bush Administration’s Stockpile Reduction Plan,” Natural Resources Defense Council, http://www.nrdc.org/nuclear/fstockpile.asp

[3] Kristensen, Hans M., and Robert S. Norris. “U.S. Nuclear Forces, 2006,” *Bulletin of the Atomic Scientists*, January/February 2006, Vol. 62, No.1

[4] Sirak, Michael. “Air Force Prepares To Draw Down Minuteman III Fleet By 50 Missiles.” Defense Daily. April 17, 2007.

[5] “5 Minutes to Midnight,” *Bulletin of Atomic Scientists*, January/February 2007. 80

[6] Mary Popejoy, Journalist 1st Class, “USS Alabama Offloads Last of C4 Trident Missiles,” *Navy Newstand* Story Number: NNS051105-02, Nov. 5, 2005

[7] Federation of American Scientists. “B-2 Spirit.” http://www.fas.org/nuke/guide/usa/bomber/b-2.htm (Accessed April 9, 2007)