

LEARN ABOUT NUCLEAR WEAPONS

Nuclear weapons armament and disarmament

It takes time, but a process of nuclear disarmament is actually taking place. Unfortunately, in parallel to this process runs a process of upgrading the capacity and refinement of existing nuclear weapons. A problem noted both by the peace movement and several non-nuclear weapon states is a tendency of developing smaller tactical nuclear weapons for battlefield use. According to the Cold War terror balance, nuclear weapons were not to be used. The development of smaller, lighter nuclear weapons means a lowering of the threshold for nuclear weapons use.

A development of existing arsenals is called vertical proliferation. New states acquiring nuclear weapons is called horizontal proliferation. Development of nuclear weapons is a violation of the nuclear weapon states' undertaking to disarm their arsenals under the Nuclear non-Proliferation Treaty (NPT).

The US



During the Cold War, astronomical sums of money were spent on developing, testing and producing new nuclear weapons. After the end of the Cold War, the development decreased, and the US pronounced a nuclear test moratorium, yet refusing to sign the Comprehensive Test Ban Treaty (CTBT). A Life Extension Program, replacing ageing components with new, practically identical parts maintains the quality of US nuclear arsenals.¹

Today, the Bush administration claims that US arsenals are obsolete and could even pose a security threat due to their old age. It is proposed that the current arsenal be replaced to increase reliability and security. Critics say this is not true; that American nuclear weapons are robust and well-tested and with the right maintenance can be preserved in a perfect condition. The desire to replace the older warheads with new ones is more an issue of power display and above all the aspiration of the arms industry to make jobs and money.²

The new programme was approved on 30 November 2006 by the Nuclear Weapons Council, under the name of Reliable Replacement Warhead (RRW). The RRW is developed by the National Nuclear Security Administration (NNSA) that is responsible for the US nuclear programme. The new nuclear warheads will be

designed for long-term confidence in reliability and greater security, and ease of production and maintenance.³

The American Congress is split over the size of the RRW programme. Some think it should, at a maximum, be a programme to preserve existing arsenals with the least possible upgrades, while others believe the full arsenal should be replaced with new weapons to meet new security demands. The project is expected to cost 25 million USD in 2006, 28 million USD in 2007 and 89 million USD in 2008.⁴

A broad RRW program would significantly harm US national security, primarily because it would disrupt international cooperation in non-proliferation. That would diminish pressure on e.g. North Korea to give up their nuclear weapons programs and would disrupt efforts to eliminate clandestine trafficking in nuclear materials and equipment. In addition, the Department of Defense (DoD) would probably demand that any new warhead undergo full nuclear tests before it is accepted into the stockpile. If the US were to conduct even a single nuclear test, other nations would surely follow suit, which could lead to a new nuclear arms race.⁵

Also the development of other new types of nuclear weapons has been on the agenda of the Bush administration. Congress in 1993 banned research and development of low-yield nuclear weapons, those with yields less than five kilotons. After taking office, the Bush administration pressed for an amendment of the ban, showing a great interest in developing small, tactical nuclear weapons for battlefield use, so-called 'mini-nukes'.⁶

Russia



In Russia, too, nuclear weapons development diminished after the end of the Cold War, with a faltering national economy and a changed security situation. In recent years, indications reveal a development and upgrading of the Russian nuclear arsenal. Vladimir Putin, during his time as the President of Russia, has tried to assert Moscow's role on the international arena by re-establishing the Russian military forces weakened during the tumultuous 1990's.

In October 2007, Putin announced that Russia was working on new types of nuclear weapons as part of a "grandiose" plan to boost the country's defence. "We will develop missile technology including completely new strategic (nuclear) complexes, completely new." Putin said. He did not specify what kind of "completely new strategic weapons" Russia was developing, but stressed that in addition to its land-based ballistic missiles, Russia would also develop other parts of its nuclear triad: nuclear submarines and strategic bombers.⁷ Putin also warned the US not to ignore Russian opposition to the planned US missile shield in Poland and Czech Republic, and pledged to counter the shield if realised.⁸

With many former Soviet states (Bulgaria, Estonia, Lithuania, Latvia, Romania, Slovakia, Slovenia, the Czech Republic and Hungary) joining the NATO military alliance, Russia probably feels threatened. The possibility of Ukraine and Georgia joining the NATO made Putin angry enough to threaten to target nuclear missiles against the Ukraine capital Kiev were the country to join the western military alliance.⁹ A large nuclear arsenal investment in Russia, hence, is not unthinkable.

In 2007, Russia began testing a MIRV version of its mobile Topol-M missile. The intercontinental ballistic missile system was initially intended to transport one nuclear warhead per missile, but now Russia has begun equipping these missiles with multiple independently targeted warheads. The developed system is expected to be completed in 2010..¹⁰

The UK



On 14 March 2007, the British Parliament voted for an extension of the UK Trident nuclear submarine system. Without a renewal, the current nuclear submarines would expire by 2025. The new fleet is expected to be built in 17 years, and functioning until 2050.¹¹

The new Trident programme has been widely criticised by the peace movement in the UK and the rest of the world. A renewed nuclear programme binds the UK to a security policy based on weapons of mass destruction, increasing international tension and the risk for a nuclear arms race.¹²

France



The nuclear policy of France was changed in January 2006 when then President Jacques Chirac announced that France would be ready to use nuclear weapons against any state which launched a terrorist attack against it.¹³ A few weeks after Chirac's statement came information that France had secretly been modifying its nuclear arsenal to increase its accuracy and range.

Two major changes have occurred: the bombs can now be fired at high altitude to create an "electromagnetic pulse" to destroy the enemy's computer and communications systems; and the number of nuclear warheads has been reduced to increase the missiles' range and precision.¹⁴

China



The Chinese nuclear arsenals are surrounded by even more secrecy than other nuclear weapon states', and less is known about its nuclear plans. During recent years, however, China has developed faster and more precise missiles that can carry single nuclear warheads or be equipped with multiple independently targeted warheads (MIRV). According to US intelligence estimates, a US missile shield could force China to increase its nuclear arsenal to as much as 75-100

intercontinental ballistic missiles and up to 200 deployed nuclear weapons through 2015. Reports say that China may spend up to 19 billion USD on upgrading its nuclear arsenal.¹⁵

The main part of the Chinese nuclear arsenal is based on missiles fuelled by liquid fuel. This means it takes several days to get the missiles ready for use, compared to missiles fuelled with solid fuel.

-
- 1 Medalia, Jonathan. *The Reliable Replacement Warhead Program: Background and Current Developments*. Congressional Research Service, update 19 May 2008.
 - 2 Civiak, Robert. *The Reliable Replacement Warhead Program, A Slippery Slope to New Nuclear Weapons*. Tri-Valley CAREs, January 2006.
 - 3 Medalia, Jonathan. *The Reliable Replacement Warhead Program: Background and Current Developments*. Congressional Research Service, update 19 May 2008.
 - 4 US Department of Energy. FY 2008 Congressional Budget Request
 - 5 Civiak, Robert. *The Reliable Replacement Warhead Program, A Slippery Slope to New Nuclear Weapons*. Tri-Valley CAREs, January 2006.
 - 6 Ruppe, David. "U.S. Test to Model Low-Yield Nuclear Bomb Effects". Global Security Newswire, 4 April 2006.
 - 7 Solovyov, Dmitry. "Russia plans new nuclear weapons". Reuters, 18 October 2007.
 - 8 Halpin, Tony. "Putin says Russia to get new nuclear weapons". Times online, 18 October 2007.
 - 9 Baker, Peter. "US-Russia Relations Chilly Amid Transition". The Washington Post, 1 March 2008.
 - 10 "Russia to deploy fixed-site Topol-M ICBMs by 2010-SMF cmdr". Ria Novosti, 8 May 2007.
 - 11 "Trident plan wins Commons support". BBC News, 15 March 2007.
 - 12 Campaign for Nuclear Disarmament
http://www.cnduk.org/index.php?option=com_content&task=view&id=12&Itemid=31
 - 13 "France 'would use nuclear arms'". BBC News, 19 January 2006.
 - 14 Willsher, Kim. "France secretly upgrades capacity of nuclear arsenal". The Guardian, 10 February, 2006.
 - 15 Nuclear Threat Initiative <http://www.nti.org/db/china/wnwmdat.htm>