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Arms control – a set of measures aimed at cessation of arms buildup, their limitation, reduction and elimination as well as measures aimed at arms nonproliferation

Nuclear arms control – a set of measures adopted on the basis of international treaties and oriented at cessation of buildup, limitation, reduction and elimination of nuclear armaments as well as prevention of proliferation of nuclear technologies and nuclear arms, strengthening of trust in nuclear sphere
Nuclear Reductions
1972 Strategic Arms Limitation Treaty (SALT I)

At that time the USA had advantage in a number of warheads due to the possession of ICBMs and SLBMs with **multiple independently targetable reentry vehicle (MIRV)**

- Signed *simultaneously with Anti-Ballistic Missile Treaty in Moscow on May 26, 1972* for five year period
- Came into force on **October 10, 1972**

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### 1972 Strategic Arms Limitation Treaty (SALT I)

<table>
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<tr>
<th>USSR</th>
<th>Imposed Limitations</th>
<th>USA</th>
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<tbody>
<tr>
<td>![USSR Flag]</td>
<td>![ICBM] 1,526</td>
<td>![USA Flag] 1,054</td>
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<tr>
<td>![SLBM] 950</td>
<td></td>
<td>![SLBM] 700</td>
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<tr>
<td>![Nuclear Submarines] 42</td>
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<td>![Nuclear Submarines] 41</td>
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- Treaty limited the number of **strategic missile launchers** for both sides **for the level of year 1972**
- Treaty **did not** limit the number of heavy bombers
- Treaty **did not** limit the number of nuclear warheads

- Treaty forbade **reequipment of light missile launchers and old types missile launchers into heavy missile launchers** which in fact meant limitation of Soviet heavy missile launchers

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1979 Strategic Arms Limitation Treaty (SALT II)

- Signed in Vienna on June 18, 1979
- Never entered into force (not ratified by US)

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1979 Strategic Arms Limitation Treaty (SALT II)

- Limited the number of missile launchers for strategic nuclear missiles to 2400 units (2250 from January 1, 1981)

- Limited the number of missile launchers equipped with MIRV to 1320 units

- As part of the 2250 level, the agreement created these sublevels:
  - No more than 1320 launchers of ICBMs, MIRVed SLBMs and ALBMs, and Heavy Bombers with MIRVed ALCM
  - Of these, no more than 1200 ICBM and SLBM launchers
    - Of these, no more than 820 MIRVed ICBMs

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1979 Strategic Arms Limitation Treaty (SALT II)

- Nevertheless up to mid 80s both sides adhered to the agreed levels.
- In May 1986 in the course of implementation of the program of deployment of heavy bombers with cruise missiles USA exceeded the sublevel for launchers and heavy bombers with ALCMs.
- Was sharply criticized in the USA.
- In autumn of 1979 it was recalled from the US Senate under the pretext of Soviet military interference into internal affairs of Afghanistan.
1987 Intermediate-Range Nuclear Forces Treaty (INF Treaty)

- In the beginning of the 80s, USSR started deployment of SS-28 “Pioneer” missiles in the European part of the country, in response the USA started deployment of “Pershing’ and cruise missiles in Europe.

- Signed in Washington on December 08, 1987

- Effective from June 1, 1988 (no time limit)
1987 Intermediate-Range Nuclear Forces Treaty (INF Treaty)

- The first agreement that led to a real reduction on nuclear arms
- Elimination of all Soviet and American medium (1000-5000 km) and short (500-1000 km) range missiles
- Asymmetrical reduction (USSR destroyed 1846 missiles, the US only 846)
- Under the terms of the INF Treaty, the USSR also had to destroy its newest tactical weapon system, the SS 23 Spider, even though its range was under 500 km
- For the first time, inspection activities were made legally possible
- For the first time, concrete procedure of elimination of hardware were agreed.
- In the first six months of the implementation of the Treaty it was allowed to eliminate up to 100 missiles by means of launch.

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Additional Protocol to the Treaty was signed by Russia, Belarus, Ukraine and Kazakhstan and the USA in Lisbon on May 23, 1992. According to the Protocol, Russia became the only successor of the USSR in the terms of the Treaty. Belarus, Kazakhstan and Ukraine made obligation to join NPT Treaty as non-nuclear states.
1991 Strategic Arms Reduction Treat (START-1)

- Contained a number of **limitations on modernization of existing and creation of new strategic offensive weapons:**
  - heavy ICBMs of new types;
  - mobile launchers of heavy ICBMs;
  - ban on reequipment of silos for heavy ICBMs;
  - heavy SLBMs;
  - ICBMs and SLBMs with more than 10 warheads;
  - means of speedy reloading;
  - nuclear ALCMs with more than one warhead

- The number of warheads was decreased to **6000-6500 for each of the parties**;

- The number of delivery vehicles was reduced to **1600 units for each party, with no more than 154 heavy ICBM and SLBM (with weight more that 100 tones)**;

- The number of **sea-launched cruise missiles** with a **range of over 600 km** was reduced to **880 units (changes introduced by a political decision, not by provisions of the Treaty)**.

- Was terminated **in December, 2009**
1993 Strategic Arms Reduction Treaty (START-2)

- No more than 3000-3500 warheads, by January 1st 2003
  - Of these, no more than 1700-1750 SLBMs
- Elimination of all MIRVed ICBMs
- Elimination of all heavy ICBMs

- Signed on January 3, 1993
- In fact – the continuation of START-1 (the same procedures and provisions)
- In force till the end of implementation of START-1
- The most painful provision for Russia – elimination of heavy ICBMs. Limitations for SLBMs were considerably weaker

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1993 Strategic Arms Reduction Treaty (START-2)

- In 1997 **Protocol on Prolongation of the Period of Elimination** plus **Protocol on Differentiation Between Strategic and Nonstrategic Ballistic Missile Defence Systems** were signed as a single packet with START-2. The US Senate refused to ratify the protocols.

- In 2002 after the USA withdrew from ABM Treaty, Russia refused to implement START-2.
2002 Treaty on Strategic Offensive Reductions (SORT 2002; Treaty of Moscow 2002)

- No more than 1700-2200 operationally deployed warheads
- No verification provisions
- Agreement did not require the destruction of dismantled warheads

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2010 Strategic Arms Reductions Treaty
(New START; START 3)

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What are the goals of Russia and the United States?

➢ “...we can ensure the security of America and our allies, and maintain a strong and credible strategic deterrent, while reducing our deployed strategic nuclear weapons by up to one-third. And I intend to seek negotiated [arms reductions] with Russia to move beyond Cold War nuclear postures.”
Barack Obama, President of the USA, Berlin, 19 June 2013

➢ “The US can not count on our consent of the reduction of nuclear weapons at a time when they are increasing their own ultra-precise systems and preparing their own defenses.”
Alexey Pushkov, Head of the Foreign Affairs Committee, Russia's Lower House of Parliament, Moscow, 19 June 2013

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Perspectives on Further Nuclear Weapons Limitations and Reductions

- Further reductions of nuclear weapons
- Enhancing transparency and strengthening verification measures
- Involving all nuclear states in the disarmament process
Missile Defence

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In accordance with 1972 ABM Treaty US and Russia made following commitments:

- to have only **one** ABM deployment site with not more that 100 interceptors;
- to **impose limitations** on their ABM systems;
- not to deploy **nationwide** ABM systems;
- not to deploy **effective regional** ABM systems;
- not to create **sea-based, air-based, space-based and mobile** ABM systems;
- not to **enhance** radar stations **with ability of countering ICBM’s**.

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Announced by US President Ronald Reagan on March 23, 1983

The SDI goal was a creation of nationwide ABM system for US and it’s allies territories protection from nuclear missile strike from the territory of USSR

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**The European Phased Adaptive Approach**

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<td>Deployment of the ships with <strong>“SM-3 Block IA”</strong> interceptors in Aegean, Adriatic and Mediterranean sea</td>
<td>Deployment of the base with <strong>“SM-3 Block IB”</strong> interceptors in Romania</td>
<td>Deployment of the base with <strong>“SM-3 Block IIA”</strong> interceptors in Poland. Replacement of deployed ABM systems with <strong>“SM-3 Block IIA”</strong> interceptors</td>
<td>Deployment of modified <strong>“SM-3 Block IIB”</strong> interceptors in Poland which have the potential to counter ICBMs and SLBMs</td>
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- **South European countries protection from short-range missiles**
- **South and south-eastern European countries protection from short-range missiles**
- **European countries protection from intermediate-range missiles**
- **European countries protection from ICBMs**

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1. Abandoning the implementation of "Phase IV of the adaptive approach to building the European segment of the U.S. missile defense"

2. Interceptors, meant for deployment in Poland, will be based in Alaska
Russian proposals for mutually acceptable decisions

Criteria
- **technical performances** of BMD components (interceptor's speed, number of interceptors, radar range, control system capabilities)
- **deployment sites**
- **capabilities for interception** of various types of BMs at boost, midcourse and terminal phases of flight

joint familiarization with European BMD deployment plans and its implications for the relevant strategic deterrence capabilities.

development of verification measures to assure security of strategic capabilities.

legally binding agreements defining mutual obligations of the pertinent parties to deploy a European BMD system providing equal security to all participants

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Tech Criteria for Nontargeting

**velocity** of interceptor

**number** of deployed interceptors;

**fixed BMD sites** and **patrol areas** for mobile BMD systems

**size** of killing zone

**propellant budget** and **angular coverage** of BMD radar

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