Arms Control in Europe

This learning unit will present the history of the development of the European arms control architecture, outline its main components and discuss its gradual unravelling, addressing conventional and nuclear dimensions. It will also examine the role of the European Union. Lastly, it will discuss the factors which may lead to a return of arms control.

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1. Introduction and basic concepts

Introduction

The European arms control system, which has its origins in the Cold War, is in dire straits. In the past, it was seen as a success story: arms control instruments facilitated the transition from a Cold War standoff between Warsaw Pact and NATO countries to the more cooperative relationship of the 1990s and early 2000s. This enabled large-scale reduction of stockpiles of conventional and nuclear weapons in Europe. By developing a network of arms control agreements and risk reduction measures, European countries sought to reduce the risk of war and curb the incentives for dangerous and costly arms races.

Existing arms control measures failed to prevent the deterioration of relations between the West and Russia, a trend that began in the early 2000s. This unravelling of the system reached its peak after Russia's full-scale invasion of Ukraine in 2022. While a war on the continent rages, the prospects for reconstituting a European arms control system – one that would involve restraining military activities or reducing the size of weapons stockpiles – appears highly doubtful. Most European countries are now prioritising the strengthening of their defence and deterrence capabilities to protect themselves against potential aggression.

This learning unit will present the history of the development of the European arms control architecture, outline its main components and discuss its gradual unravelling. It will also examine the role of the European Union. Lastly, it will discuss the factors which may lead to a return of arms control and the foundations for a new, robust system with the ability to meet Europe's security needs in the future.

Basic concepts

The European system of arms control includes various types of instruments and agreements. Some are legally binding; others are political commitments or declarations. Some involve pledges to verifiably reduce the numbers of weapons, for example main battle tanks, while others deal with voluntary information exchanges or additional measures to limit the risk of war. These measures can apply to conventional or nuclear weapons. They may be unilateral, bilateral or multilateral.

It is useful to distinguish between the different aims of these instruments and agreements. Four terms which can define the objectives of the European arms control system are:

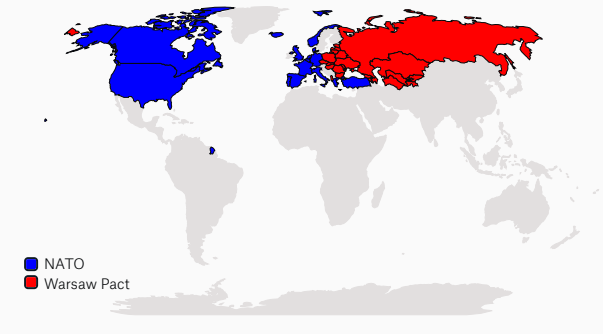
- **Arms Control**
  Agreements to regulate some aspect of military potential, including location, amount or types of weapons or facilities, usually with restraints and verification.
- **Behavioural Arms Control**
  An approach to arms control focusing on developing and strengthening norms of responsible behaviour in interstate relations.
- **Risk Reduction**
  Measures to reduce the risk of war due to misunderstandings, miscalculations, misinterpretations, accidents, or incidents.
- **Confidence- and Security Building Measures (CSBMs)**
  Arrangements to increase trust between countries by enhancing transparency, predictability, and demonstrating a lack of aggressive intentions.

2. History of arms control in Europe

This chapter will present the history of the emergence, development and demise of the European arms control system, starting with its Cold War origins and finishing with the consequences of the full-scale Russian attack against Ukraine launched in 2022.

Cold War origins

During the Cold War, almost the whole of Europe was seen as a potential battleground for the conflict between the Soviet Union-led Warsaw Pact and US-led NATO. Especially during the 1950s and 1960s, heightened Cold War tensions between the United States and the Soviet Union meant that both sides were deeply distrustful and committed to achieving military superiority in Europe, rather than engaging in arms control.



Map showing member states of NATO and Warsaw Pact
Data: Natual Earth. Graphic: PRIF

Millions of soldiers and hundreds of thousands of pieces of weaponry were deployed by all sides. In addition to conventional weapons, thousands of warheads for so-called non-strategic or tactical nuclear weapons were stationed on the territory of European states.

However, by the 1970s, a shift toward détente, or easing of international tensions, provided opportunities for arms control and risk reduction as both sides recognised the mutual benefits of reducing the risk of conflict. In Europe, détente was pursued through the Conference of the Conference on Security and Cooperation in Europe. After another phase of tensions during the early 1980s, including the so-called Euromissiles crisis over the deployment of a new generation of Soviet intermediate-range nuclear armed missiles in Europe and NATO's counter-deployment of ballistic and cruise missiles, political changes in the Soviet Union paved the way for the emergence of a European system of arms control in the last stages of the Cold War. It was originally aimed at managing the confrontation between the two blocs NATO and the Warsaw Pact to minimise the threat of a major war and build trust between the parties, but was then adopted to support political changes on the continent, including the demise of the Soviet Union.[1]

Role of arms control in transforming European security in the 1990s

After 1989, arms control measures proved very important in securing a largely peaceful transformation of the European security order. The post-Cold War European arms control system used a combination of different instruments and procedures. The two main legally binding ones were the CFE (with subsequent modifications) and the OpenSkies. European countries, the United States and Canada also agreed to implement a politically binding set of confidence- and security-building measures CSBMs) to increase the transparency of their military doctrines and actions in Europe. Lastly, the United States and Russia made a number of unilateral pledges to significantly reduce their stockpiles of tactical nuclear weapons.

As a consequence, tens of thousands of tanks, artillery pieces and other heavy weapons were verifiably destroyed in the 1990s. The armed forces of former enemies started to share information and cooperate on an unprecedented scale.

Tanks eliminated in accordance with the CFE obligations and prepared for inspection.
U.S. Government/Roy Cochrun

After the bloody conflicts in the Western Balkans, in which heavy weapons were widely used, the 1995 Dayton Peace Agreement included provisions for the establishment of a sub-regional conventional arms control regime. As a result, more than 1,000 pieces of heavy weaponry were destroyed in Serbia, Croatia, Montenegro and Bosnia and Herzegovina.

Crisis of European arms control in the 2000s

There were three main reasons for the current and still unresolved crisis of the European arms control system, which started in the early 2000s.

First, arms control measures such as the CFE Treaty were good at strengthening stability, but much less

effective as instruments of conflict resolution. Countries engaged in fighting on their own territory, for example Russia in Chechnya, or in interstate conflicts (e.g. Armenia and Azerbaijan) did not want to restrain their forces. Nor did they want to provide detailed information about their military planning and stockpiles.

Second, when the major conventional arms reductions were completed, the arms control regime started operating below the radar of most European decision-makers. The limitations on numbers of tanks or the formality of the information exchange and inspection regimes seemed out of synch with more urgent security issues, such as the fight against terrorism or non-proliferation of weapons of mass destruction. The system also did not take into account or respond to the development of new weapons and changes in military doctrines.

Third, political relations between Russia and the West deteriorated, and a weakened arms control system was not able to prevent the return of confrontation. The CFE Treaty was modified in 1999 to reflect the changes resulting from NATO enlargement to the East, but its ratification was not completed, as Russia's Western partners expected it would first withdraw its forces from Moldova and Georgia. In response, Russia suspended implementation of the CFE in 2007. There were also cases of selective implementation or circumvention of adopted confidence-building obligations, for example by organising massive 'snap' exercises, which do not have to be announced in advance. The INF Treaty collapsed in 2019 after the US accused Russia of violating the Treaty by developing an intermediate-range cruise missile, and the US and subsequently Russia withdrew from the Open Skies Treaty in 2021.

Impact of Russia's war on Ukraine

In as early as 2014 and 2015, the Russian takeover of Crimea and the military confrontation between Ukraine, the separatist forces and Russia in eastern Ukraine exposed serious deficiencies in the system. Risk reduction procedures contained in the Vienna Document and Open Skies Treaty were initiated, but they had little or no restraining effect on the developments on the ground.

OSCE SMM monitoring the movement of heavy weaponry in eastern Ukraine, March 2015.
OSCE/Evgeniy Maloletka

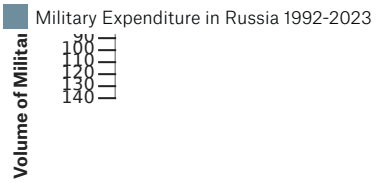
The situation repeated itself in the run-up to the full-scale Russian invasion of Ukraine in February 2022, with Vienna Document risk reduction procedures triggered by Ukraine and a number of its partners, but ultimately blocked by Russia. There were fundamental factual disagreements between Russia, on the one hand, and Ukraine and NATO states, on the other, about the presence of Russian troops and equipment inside eastern Ukraine and the concentration of Russian forces in the vicinity of the country. These were not resolved through the existing arms control, risk reduction and verification measures.[2]

The Russian invasion itself can be seen as the most glaring failure of the European arms control system, designed to prevent the large-scale concentration of military forces and attack against a weaker opponent.

As one of the consequences of the war and the sharp increase of tensions in Europe, a number of European states have taken the decisions to increase their defence budgets and acquire additional weapons systems and capabilities.

Military Expenditure in Europe 1991-2023

Military expenditure in Europe, 1991–2023 (in const. 2021 USD prices and exchange rates, except for the last figure which is in USD at 2022 prices and exchange rates).
Data: SIPRI Military Expenditure Database, Graphic: PRIF



Russian military expenditure 1992–2022 (in const. 2022 USD)
Data: SIPRI Military Expenditure Database, Graphic: PRIF

In the national strategies as well as NATO documents, the emphasis was on augmenting deterrence needs, with arms control and risk reduction seen as 'complementing' these efforts.

> Given the direct responsibility of NATO countries for fuelling the Ukraine conflict, as well as the accession of Finland to the alliance and the ongoing consideration of a similar application by Sweden, even the formal preservation of the CFE Treaty has become unacceptable from the standpoint of Russia's core security interests.
>
> The Ministry of Foreign Affairs of the Russian Federation

The final withdrawal of Russia from the CFE Treaty, which took effect in November 2023, was justified by the assessment that it is no longer in line with Russia's interests. In response, 22 NATO countries decided, in November 2023, to suspend the operation of the CFE Treaty 'for as long as necessary', a position shared by Ukraine. In April 2024, Türkiye joined other NATO countries in suspending the CFE, and in May 2024 Belarus also suspended its participation in the Treaty.

Summary

The efficiency and importance of European arms control and its system of interlocking agreements and instruments is closely connected to the political, strategic and military developments in the Euro-Atlantic space. In the 1990s, the system performed well due to the approximation of security interests of most European countries and the United States. Its crisis reflected rising tensions in Europe. Arms control limitations and transparency measures were increasingly seen as obstacles, especially by Russia, which aimed to reassert its position in the European security system.

1975 · Helsinki Final Act
Agreed by 35 states from Western and Eastern blocs, as well as non-aligned countries, the package included some basic **confidence-building measures** such as pre-notification of large exercises.

1986 · Stockholm Document
The first comprehensive politically binding document to stipulate a range of **CSBMs** in Europe, followed by the 1990 *Vienna Document*.

1987 · INF Treaty
An agreement between the **United States** and the **Soviet Union** to eliminate ground-launched ballistic and cruise missiles with ranges of between **500 and 5,500 km**.

1990 · CFE Treaty
Described as the **cornerstone of European security**, the *Treaty on Conventional Armed Forces in Europe* established numerical limits and verification measures for five categories of weapons: **tanks, armoured combat vehicles, heavy artillery, combat aircraft, and attack helicopters**.

1992 · Open Skies Treaty
This agreement, which entered into force in **2002**, allows for other participants to conduct **observation flights** over the entire territory over which a state party exercises sovereignty, with the aim of improving **openness and military transparency**.

1999 · CFE Adaptation
A significant update or adaptation of the **CFE Treaty**, which established new **national and territorial equipment limits**, but never entered into force.

2007 · CFE suspension by Russia
Russia decided to **no longer abide** by treaty limits and accept inspections, citing the failure of other states to ratify the *Adapted CFE Treaty*.

2011 · Vienna Document update
The last modification and collation of a broad range of **confidence-building and risk reduction measures** agreed by the *OSCE* participating states.

2019 · End of the INF Treaty
The **United States** formally withdrew from the **INF Treaty**, citing **Russian non-compliance** (testing and developing a prohibited intermediate-range missile), as well as concerns over **China's growing missile arsenal**.

2020 · US withdrawal from the Open Skies Treaty
Based on its assessment of repeated **Russian violations**, the *Trump administration* announced the **US withdrawal** from the Treaty in May 2020. The withdrawal took effect on **22 November 2020**.

2021 · Russian withdrawal from the Open Skies Treaty
Immediately following the **US withdrawal**, Russia moved to pull back from the treaty, and its withdrawal became effective in **December 2021**.

2023 · Russian withdrawal from the CFE
In **May 2023**, the **Russian parliament**, acting on a government initiative, decided to **fully withdraw** from the *CFE Treaty*, pointing to the **change of security situation** caused, *inter alia*, by **NATO activities and enlargement**.

2023 · Decision on CFE suspension by NATO states
Responding to **Russia's withdrawal**, **22 NATO states** – parties to the *CFE Treaty* – announced their intention to **suspend the operation** of the Treaty 'for as long as necessary', adding that 'a situation whereby Allied States Parties abide by the Treaty, while Russia does not, would be unsustainable'.

1. For an analysis of the historical stages of the development of European arms control and the links to political processes in Europe, see, e.g.: Alexander Graef, Beyond Stability: The Politics of Conventional Arms Control in Europe, Zeitschrift für Friedens- und Konfliktforschung 10 (2), 2022, [https://link.springer.com/article/10.1007/s42597-022-00070-y]
2. See Hernández, Gabriela Iveliz Rosa. 2024. "Whither Conventional Arms Control in Europe?", in: Friesendorf, Cornelius/ Kartsonaki, Argyro (eds): OSCE Insights, Nomos, Baden-Baden.

3. Major instruments of European conventional arms control

The CFE Treaty

This chapter will discuss the three main parts of the European conventional arms control system developed in the 1990s. The Conventional Armed Forces in Europe (CFE) Treaty, the Open Skies Treaty and the Vienna Document on Confidence and Security-Building Measures. Together, they formed the foundation of the cooperative approach to security and, despite the recent setbacks, provide a point of reference for potential future work on re-establishing arms control in Europe.

The CFE Treaty: Numbers and definitions

One of the main features of the first Cold War in Europe was the large numerical advantage the Soviet Union and the Warsaw Pact had over NATO in terms of major conventional weapons, such as tanks or artillery. In the West, this fuelled fears of a surprise large-scale conventional attack aimed at overwhelming NATO's defences.

As the Cold War was coming to an end, a window of opportunity opened to deal with this challenge by using arms control measures to reduce the stocks of conventional weapons in Europe and to increase the stability of the NATO–Warsaw Pact relationship.

These were the origins of the Treaty on Conventional Armed Forces in Europe [https://www.osce.org/files/f/documents/4/9/14087.pdf], or the CFE Treaty, signed on 19 November 1990. The Treaty entered into force on 9 November 1992, with 30 participating states.

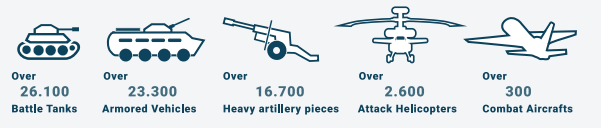
The original aim of the Treaty was to establish a numerical balance in major weapons between NATO and the Warsaw Pact.

Military stability based on numerical balance
Grübelfabrik (CC BY NC SA)

The so-called Treaty-Limited Equipment (TLE) included five categories of weapons:

- tanks
- armoured combat vehicles
- heavy artillery
- combat aircraft
- attack helicopters

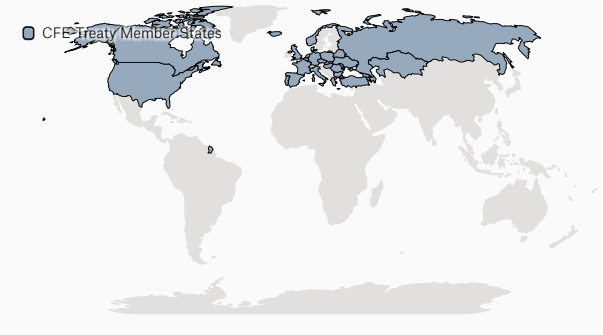
Initial ceilings for each side (NATO and Warsaw Pact) were: 20,000 tanks; 30,000 armoured combat vehicles; 20,000 heavy artillery pieces; 6,800 combat aircraft; 2,000 attack helicopters.



Initial ceilings for each side (NATO and Warsaw Pact)
Grübelfabrik (CC BY NC SA)

Equipment exceeding the agreed limits was to be eliminated through destruction or conversion. The CFE included the host nation consent rule: no foreign conventional forces can be stationed on one's territory without the agreement of the hosting state. The CFE states were obliged to provide information about their military holdings, update them and allow intrusive on-site inspections on their territory to verify this information.

The Treaty covered the territories of the state parties between the Atlantic and the Ural Mountains, and originally also included provisions for different zones: additional restrictions on the numbers of tanks, armoured combat vehicles and heavy artillery were included for specified areas in Northern and Southern Europe (the flanks).

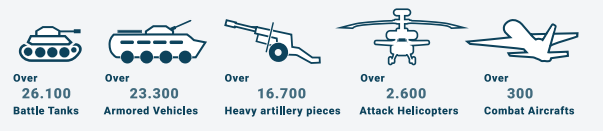


Map showing The 'original'European CFE countries (in 1992, after the breakup of the Soviet Union)

The CFE Treaty was often referred to as the **cornerstone of European security**. While the security landscape in Europe was changing rapidly with the dissolution of the Soviet Union and the Warsaw Pact, as well as NATO enlargement, the Treaty (with some corrections reflecting, e.g. the emergence of new countries in the post-Soviet space) provided a foundation of military stability for the continent.

Around **52,000 pieces** of Treaty-Limited Equipment were eliminated in accordance with the

Treaty between 1992 and 1995. If voluntary reductions are also added, more than **69,000 pieces of Treaty-Limited Equipment** were eliminated altogether, including more than 26,000 tanks and 2,600 helicopters. Thousands of inspections and verification visits have been conducted.



Destroyed systems in accordance with the Treaty between 1992 and 1995
Grübelfabrik (CC BY NC SA)

The CFE Treaty (II): Implementation, problems and path to irrelevance

As with any treaty as complex as the CFE, there were implementation problems from the very beginning with Russia repeatedly exceeding its Treaty limits for some categories of TLE during its military operations in Chechnya. Armenia and Azerbaijan were accused of non-compliance with the Treaty in the context of the Nagorno-Karabakh conflict.

In 1999, the parties to the CFE reached an agreement on a significant update, or **adaptation of the Treaty**. Instead of the outdated bloc-based approach and flank zones, new national and territorial limits of equipment holdings were agreed. The Treaty was opened for new states to join.

As well as accepting the Adapted CFE at the OSCE Summit in Istanbul, Russia made a number of political commitments, including pledges to withdraw its Treaty-Limited Equipment and troops from Moldova and close its bases in Georgia. NATO states made it clear that they would not ratify the Adapted CFE if these pledges were not met.

Russia argued that the continued application of the original CFE Treaty was detrimental to its security interests and that the connection made by other countries to Istanbul commitments was unfounded. The Adapted Treaty was ratified by Russia, Belarus, Kazakhstan and Ukraine. Russia called on NATO countries to ratify the Adapted CFE as soon as possible. Since this did not happen, **in 2007, Russia suspended implementation of the CFE.** After emergency talks on the future of the CFE ended in failure, in 2011, NATO countries and some of their partners stopped providing treaty-related information to Russia and declared that they would not accept Russian inspections.

As one of the consequences of the war on Ukraine and its confrontation with NATO, the Russian Duma decided, in May 2023, to withdraw completely from the CFE Treaty, a decision which took effect in November 2023. In response, 22 NATO countries which were parties to the CFE decided to suspend the operation of the CFE Treaty ‘for as long as necessary’. Some of them had also decided at an earlier point to suspend providing information and accepting inspections from Belarus, due to its participation in the Russian aggression against Ukraine.

Without the participation of Russia, and with NATO members and to some extent also Belarus suspending the implementation of their obligations, the CFE’s importance and restraining function in European security has dramatically diminished.

Name: Treaty on Conventional Armed Forces in Europe (CFE)

Members 23

Effective 9 November 1992

Aims:

- Create a stable balance of conventional forces in Europe with lower levels of stocks of major weapons
- Limit the possibility of a surprise, large-scale attack
- Maintain stability through exchange of information and a verification system, including on-site inspections

Signed: 19 November 1990

Entry into force: 9 November 1992

State parties: 22 at the time of signing. 30 at the time of entry into force (including eight former USSR republics). 29 in 2025 - Russia withdrew from CFE implementation in 2023. Six other state parties suspended their observation of CFE but not withdrew (Belarus, Greece, Poland, Portugal, Turkey, United States).

Area of application: Territories of the European state parties from the Atlantic to the Ural Mountains

Treaty-Limited Equipment (TLE): Tanks, armoured combat vehicles, heavy artillery, combat aircraft and attack helicopters

Limitations: Ceilings established for each 'side' (NATO and the Warsaw Pact), further internally divided into national entitlements: 20,000 tanks; 30,000 armoured combat vehicles; 20,000 heavy artillery pieces; 6,800 combat aircraft; 2,000 attack helicopters.

TLE eliminated: Approximately 52,000 excess pieces of TLE eliminated within the area of application; 69,000 eliminated pieces including additional voluntary actions

Flank regime: Restriction on numbers of tanks, armoured combat vehicles and heavy artillery in specified areas of Northern and Southern Europe

Verification: System of information exchange, on-site inspections of the units declared to be armed with TLE, challenge inspections (to undeclared sites there TLEs may be held), monitoring of destruction, conversion inspections

Adopted CFE Treaty: Signed in 1999, ratified by Russia, Belarus, Kazakhstan, Ukraine – not in force

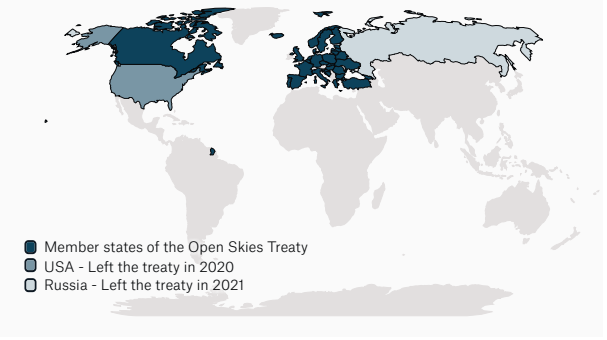
Member countries (in 2025): Armenia, Azerbaijan, Belarus, Belgium, Bulgaria, Canada, Czech Republic, Denmark, France, Georgia, Germany, Greece, Hungary, Iceland, Italy, Kazakhstan, Luxembourg, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Turkey, Ukraine, United Kingdom, United States

Open Skies Treaty

The Open Skies Treaty [https://www.osce.org/files/f/documents/1/5/14127.pdf] was first proposed by U.S. President Dwight Eisenhower in 1955. The president's idea was that the United States and the Soviet Union would allow reconnaissance overflights of each other's territory to make sure that no surprise attack was planned. Unfortunately, the proposal was rejected by the Soviet Union as an attempt to sanction spying.

Towards the end of the Cold War, political relations between the two superpowers improved significantly. When the idea of observation flights was reintroduced by the US in 1989, it was picked up by a number of NATO and Warsaw Pact countries. After three years of negotiations, the Open Skies Treaty was signed in 1992. [1]

The Treaty entered into force in 2002. As of early 2020, there were 34 state parties to the Treaty, covering the area from Vancouver to Vladivostok.



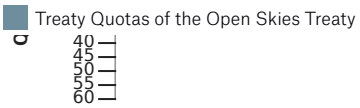
Map showing member states of the Open Skies Treaty

Data: Natual Earth. Graphic: PRIF

The basic characteristics of the Open Skies regime are:

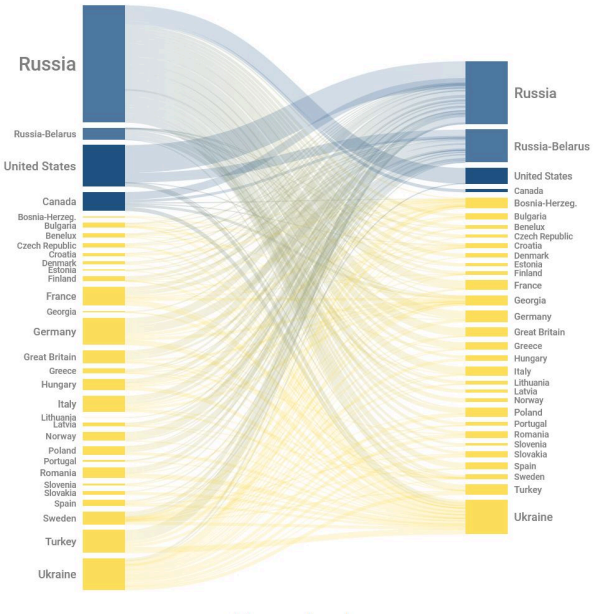
- The flights can only be conducted by unarmed, specially certified aircraft.
- Overflights can take place over the whole territory over which a state party exercises sovereignty, including the land, islands, internal and territorial waters – no areas or military installations are off-limits.
- Images from the flights are shared by the observing and observed country. They are also made available to other state parties, but these must specifically request and pay for them.
- Each aircraft can carry only specially certified sensors: video cameras, optical cameras, infrared sensors and synthetic aperture radar (allowing images of objects to be created).
- Introduction of new technology – for example use of digital camera instead of film – must be agreed by all parties. The quality of the images should be sufficient to permit recognition of major military equipment.
- Each state is assigned a specific quota of observation flights that it is obliged to receive every

year (passive quota), and it is permitted to conduct the same number of flights in other parties itself (active quota).



Treaty Quotas of the Open Skies Treaty
Data: Council on Strategic Risks, Graphic: PRIF

Before the Open Skies Treaty entered into force in 2002, around 350 trial flights took place. Since then, around 100 observation flights have been conducted every year. The year 2013 saw the 1,000th observation flight conducted under the Open Skies and in October 2019 – the 1,500th flight. The Open Skies Treaty website offers an interesting and interactive visualisation of the flights between 2002 and 2019 [https://openskies.flights/].



Visualisation of (successful) OST flights between 2002 and 2019
Courtesy of Moritz Kütt, https://openskies.flights/

Observation flights under the Open Skies Treaty are meant to:

- improve openness and military transparency between all the parties through cooperative actions;
- contribute to conflict prevention and crisis management (for example, Open Skies overflights were used in 2013 and 2014 to monitor the deployment and movement of Russian forces in the vicinity of Ukraine);
- double-check the information provided by a particular country about its military posture through other agreements and confidence-building regimes, such as the Vienna Document, and help monitor compliance with them.

Danish F-16 fighter aircraft escort a Russian observation aircraft during a flight over Denmark in 2008
OSCE

Throughout the existence of the Treaty, there were also implementation issues and disputes, for example connected with overflights in the border areas (e.g. between Russia and Georgia, or along Turkey's border with Syria), as well Russia's imposition of a 500-

kilometre limit for certain observation flights over Kaliningrad. In the US internal debate, it was also argued that Russia was obtaining significantly more intelligence benefits from the data collected under the Treaty, and modernising its data-collecting aircraft, whereas the importance of the Treaty for the US was less, given the availability of high-quality data from its satellites.

These arguments led the Trump administration to announce the US withdrawal from the Open Skies Treaty in May 2020. The decision was based on allegations of repeated Russian violations of the Treaty. The withdrawal took effect on 22 November 2020. This was followed immediately by Russia moving to pull back from the Treaty, with its withdrawal becoming effective in December 2021.

The Treaty on Open Skies remains in operation for the remaining 32 states, and some observation flights still take place. But without US and Russian participation, its relevance for European security is limited.

The Vienna Document

The Vienna Document focuses on **Confidence and Security Building Measures, CSBMs, and risk reduction**. These measures are aimed at reassuring all sides about the lack of aggressive intentions of other countries, avoiding accidental or inadvertent escalation and promoting cooperation. They also improve military stability by increasing the level of contact and predictability regarding the actions and plans of other countries, and are seen as elements of a gradual process of helping states to overcome their security dilemmas and move towards the development of cooperative security system. Unlike the legal obligations contained in the CFE and Open Skies Treaty, the Vienna Document is politically binding.

The zone of application of the Vienna Document covers the whole of Europe, the adjoining sea and air space, as well as the territory of the Central Asian countries – also members of the OSCE – with the exception of Mongolian territory.

From the relatively basic measures adopted in the 1960s and 1970s, the range and sophistication of the CSBMs increased significantly in the late 1980s and early 1990s. As the Cold War came to an end, CSBMs were seen as instruments to support a new inclusive security system in Europe. In the process, new or expanded measures were gradually added to the existing set of commitments. They were included in the 1986 Stockholm Document and the Vienna Document adopted in 1990 as well as its subsequent updated editions issued in 1992, 1994 and 1999. The latest version of the Vienna Document agreed by all members of the OSCE was issued in 2011.

Three Turkmen arms control officers taking part in a practical training held at the Verification Centre of the German Armed Forces in Geilenkirchen, 25 November 2005
OSCE

Some of the most important CSBMs and risk reduction measures in this document include:

- annual exchanges of military information (budget, organisation of armed forces, equipment);
- exchange of information on military planning and doctrines, exchange of calendars for notifiable military activities;
- risk reduction mechanisms for dealing with military incidents and unusual military activities, for example a sudden concentration of large forces at the border;
- prior notification (42 days before their start, or earlier) and invitation of observers to what are known as 'certain military activities'. To be notifiable, these activities need to exceed specified thresholds, such as minimum number of troops participating or minimum amount of equipment being used. Observers must be invited to the notifiable activities if they equal or exceed separate, higher thresholds;
- voluntary limits on the frequency of massive-scale exercises;
- military-to-military contacts, including visits to military facilities, port calls, demonstrations of new types of major weapons systems;
- inspections (of areas) and evaluation visits (to units);
- encouragement to agree regional or bilateral CBMs above and beyond the Vienna Document requirements.

Dealing with unusual military activities: the Vienna Document's risk reduction procedure

The following outlines the Vienna Document's risk reduction procedure as regards unusual military activities (see Chapter 3 paragraph 16):

- Concerns about an unusual and unscheduled activity of another state's military forces outside their normal peacetime locations which are militarily significant and are within the zone of application for CSBMs
- Request for an explanation, stating the cause of concern and the type and location of activity

(transmitted to all OSCE participating states)
- Reply, delivered to requesting state within no more than 48 hours (transmitted to all OSCE participating states)
- 1. Concerns dispelled, reply accepted; 2) Concerns not dispelled
- Request for a meeting with the responding state (transmitted to all OSCE states)
- Meeting convened within no more than 48 hours, with the presence of other invited interested states, under the chairmanship of the OSCE Chairman-in-Office (CiO) or his/her representative.
- Report from the meeting prepared by the CiO or representative and sent to all OSCE states
- 1. Concerns dispelled, situation stabilised; 2) Concerns not dispelled
- Meeting of all participating states in the forum of the OSCE Permanent Council (PC) and the Forum for Security Co-operation (FSC), convened by CiO within 48 hours on the initiative of either the requesting or responding state
- The PC and FSC assess and recommend appropriate measures for stabilising the situation and halting activities that give rise to concern

A number of weaknesses of the Vienna Document have been identified since its last update in 2011. Since it is not a legally binding instrument, its implementation by a particular country relies to large extent on that country's good will and 'peer pressure' from other participants.

Information exchange
The scope of the Vienna Document's information exchange on military forces and weapons does not cover some important elements of modern armed forces, including missile systems, naval forces and uncrewed vehicles.

Notification thresholds
The thresholds for notification and observation of exercises are seen as too high. The majority of military exercises that have taken place in Europe were smaller and fell below the thresholds. Moreover, the so-called 'surprise' or 'snap' exercises, even the largest-scale ones, do not have to be announced in advance, which constitutes a loophole.

Risk reduction mechanisms
The risk reduction mechanisms, including for unusual or unscheduled military activities, depend on the cooperation of the country where the activity is taking place, which may not always be forthcoming.

The implementation of the Vienna Document has also been negatively affected by the increased tensions in Europe and by Russia's war on Ukraine.

In particular, the Vienna Document's risk reduction mechanism for unusual and unscheduled activities was used in 2021 and 2022 to raise the alarm about military activities in Belarus and Russia in the vicinity of the Ukrainian border, but the procedure did not dispel concerns or change Russia's war plans. In February 2022, Russia refused to attend the joint session of the Permanent Council and the Forum for Security Co-operation to assess the situation regarding its unusual military activities (see above procedure).

Russia accused a number of other participating states of not providing the required information and notifications about their military activities and exercises, and in 2023, it announced that it would no longer be providing information about its armed forces within the framework of the Vienna Document's annual exchange.[2]

Quiz

View quiz at `https://eunpdc-elearning.netlify.app/lu-11/`

1. On the history of Open Skies Treaty and its negotiations, see [https://unidir.org/files/publication/pdfs/open-skies-a-cooperative-approach-to-military-transparency-and-confidence-building-319.pdf]
2. Hernández, Gabriela Iveliz Rosa. 2023. How Russia's retreat from the Vienna Document information exchange undermines European security, 24 May 2923, Bulletin of the Atomic Scientists, available at: [https://thebulletin.org].

4. Nuclear weapons and arms control in Europe

Nuclear weapons in Europe

This chapter will now present the nuclear dimension of European arms control. It examines the status of nuclear arsenals globally and the difference between strategic and non-strategic nuclear weapons. It also discusses the prospects and challenges connected with including Russian and US non-strategic nuclear weapons deployed in Europe in potential arms control negotiations and agreements.

Background information and definitions

Categories of Nuclear Weapons

Nuclear-weapons can be categorised in various ways, by explosive type, delivery-vehicle , target, yield or a combination of all four see also LU04 [/lu-04/]. Within the European context, much attention is given to the distinction between strategic and non-strategic (tactical) nuclear weapons. There is no internationally agreed definition of non-strategic nuclear weapons, however, which sometimes leads to confusion in policy and expert discussions.

The (unofficial) U.S. Defense Department's Nuclear Matters Handbook [https://www.acq.osd.mil/ncbdp/nm/NMHB2020rev/index.html] defines non-strategic or tactical nuclear weapons as 'nuclear weapons designed to be used on a battlefield in military situations.

Website of the (unofficial) Nuclear Matters Handbook
https://www.acq.osd.mil/ncbdp/nm/NMHB2020rev/index.html

This is opposed to strategic nuclear weapons, which are designed to be used against enemy cities, factories, and other larger-area targets to damage the enemy's ability to wage war.'

This definition presents challenges, as what is considered tactical from an abstract perspective, might be deemed strategic on the actual battlefield. This ambiguity was underscored by former U.S. Secretary of Defense James Mattis, who stated in 2018 that 'any nuclear weapon used any time is a strategic game changer'.

In arms control circles, the prevailing distinction categorises non-strategic nuclear weapons as those that are not designated as 'strategic' by (strategic) arms control treaties. According to this perspective, strategic weapons are of intercontinental range, while non-strategic weapons are not. While this distinction is useful, it is important to keep in mind that it primarily refers to the nuclear superpowers, the US and the Soviet Union/Russia, and overlooks the arsenals of other nations. Notably, France and the UK regard all their nuclear weapons as strategic, irrespective of range.

Since the end of the Cold War, non-strategic nuclear weapons have become an increasingly important topic in arms control discussions. This shift in focus occurred as both the United States and Russia downsized their strategic arsenals, while Russia reintroduced non-strategic systems that had previously been eliminated.

The status of nuclear arsenals

If nuclear weapons are categorised as strategic or non-strategic based on range for the US and Russia, but not for other countries, the result is the following expert estimate of arsenals around the world in 2024:

Country	Deployed strategic nuclear weapons	Deployed non-strategic nuclear weapons	Reserve/non-deployed[1]	Military stockpile[2]	Total inventory[3]
Russia	1,710	0	2,670	4,380	5,580
United States	1,670	100	1,938	3,708	5,044
France	280	N.A.	10	290	290
China	24	N.A.	476	500	500
United Kingdom	120	N.A.	105	225	225
Israel	0	N.A.	90	90	90
Pakistan	0	N.A.	170	170	170
India	0	N.A.	172	172	172
North Korea	0	N.A.	50	50	50
Totals	**3,804**	**100**	**5,681**	**9,585**	**12,121**

(These numbers are based on estimates by the Federation of American Scientists (FAS) Source: [https://fas.org/initiative/status-world-nuclear-forces/])

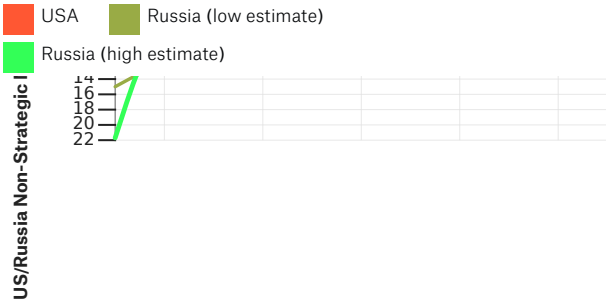
There is currently uncertainty regarding the number of Russian non-strategic nuclear weapons (NSWS) and their deployment status, with the Kremlin formally announcing its intention, in March 2023, to deploy nuclear weapons in Belarus. Russian NSNWs are declared to be in central storage, not located in bases together with delivery systems.

US non-strategic nuclear weapons

The United States currently possesses only one type of NSWS: the B-61 gravity bomb. Experts estimate that the United States maintains approximately 200 such bombs in its stockpile, with roughly half of them deployed across six bases located in five European countries: Belgium, Germany, Italy, the Netherlands and Turkey.[4]

European military airbases with US nuclear weapons deployed under the nuclear sharing programme in 2024
Data: Natual Earth. Graphic: PRIF
Licensed under CC BY 4.0.

The exact locations and quantities of the current deployments have not been publicly disclosed, however, and remain subject to expert estimates. They represent a significant reduction compared to the Cold War era when the US maintained over 7,000 forward-deployed nuclear weapons in Europe.



(Figure based on estimates from the James Martin Center for Nonproliferation Studies, May 2022.

Source: [https://nonproliferation.org/wp-content/uploads/2022/05/op55-everything-counts.pdf] (p. vi).)

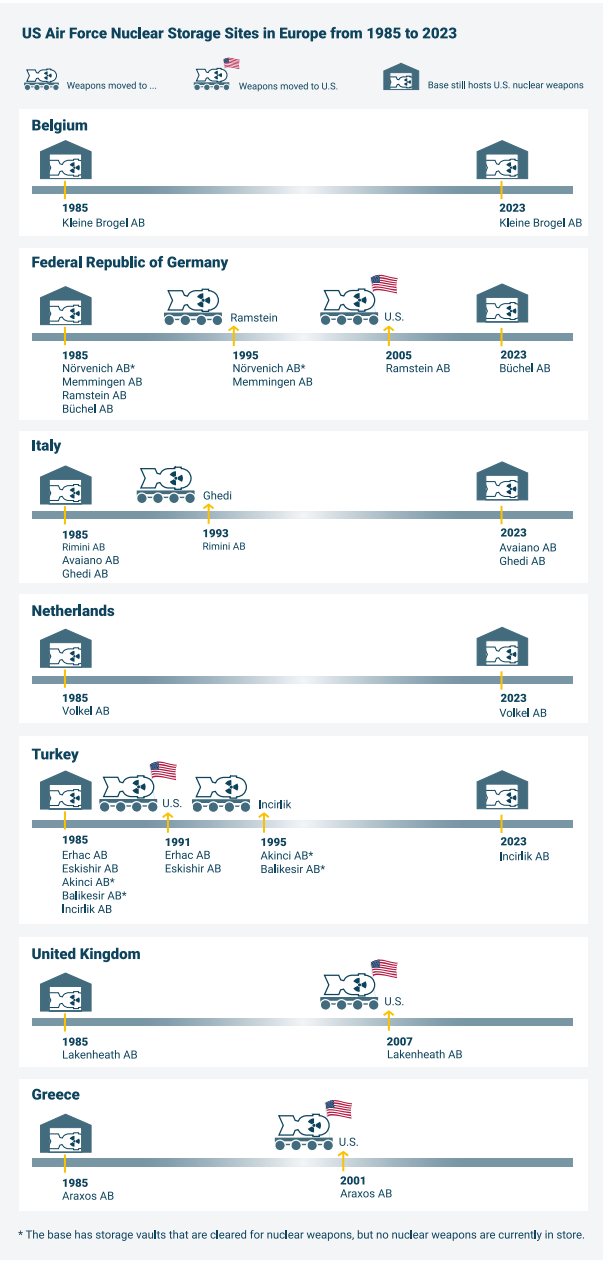


Chart based on: Kristensen/ Hans M./Korda, Matt/Johns, Eliana/Knight, Mackenzie. 2023. Nuclear weapons sharing, 2023, in: Bulletin of Atomic Sciences, 79 (6): 393–406. https://doi.org/10.1080/00963402.2023.2266944
Grübelfabrik, CC BY-NC-SA

NATO nuclear sharing

The permanent deployment of US nuclear weapons in Europe is often referred to as NATO nuclear-sharing arrangements (see also LU05). Nuclear sharing does not mean that one country simply hands control over its weapons or launch authority to another country. The weapons stationed by the United States on the territories of its allies remain firmly under US custody and control.

During periods of conflict, the US forward-deployed weapons may be made available to allies. Should the

situation arise, the B-61 would be delivered by dual-capable aircraft (DCA), which are specifically modified to carry both nuclear and conventional weapons. Both the United States and (several of) its European allies have DCA.

According to **NATO's own communications** [https://www.nato.int/nato_static_fl2014/assets/pdf/2022/2/pdf/220204-factsheet-nuclear-sharing-arrange.pdf]

> 'a nuclear mission can only be undertaken after explicit political approval is given by NATO's Nuclear Planning Group (NPG) and authorization is received from the US President and UK Prime Minister'.
>
> NATO Headquarter

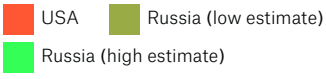
This approval process highlights the complex political considerations that NATO's nuclear strategy involves.

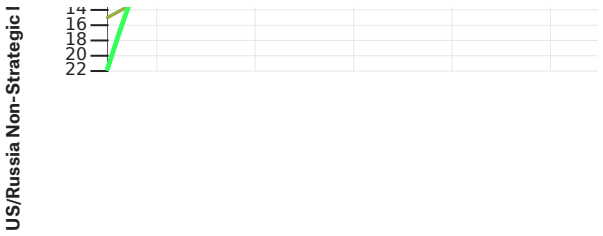
Russian non-strategic nuclear weapons

As shown above, Russia is believed to currently possess between around 1,000 and 2,000 non-strategic nuclear warheads including warheads for short-range ballistic missiles, air- and sea-launched missiles, and missile defence forces.

It is important to note, however, that there are major uncertainties surrounding the precise count. Most of Russia's non-strategic weapons systems are dual-capable, which means that some of them may be designed for conventional rather than nuclear missions. In addition, increases in the number of dual-capable launchers do not necessarily imply a corresponding increase in the number of nuclear warheads assigned to them. Many of the delivery platforms are also being overhauled and not all are deemed capable of launching nuclear weapons at this time.

During the Cold War, the Soviet Union deployed nuclear weapons in several of its republics and satellites. Following the collapse of the Soviet Union, these weapons were repatriated to Russia.





Graph based on estimates from the James Martin Center for Nonproliferation Studies, May 2022 Source: [https://nonproliferation.org/wp-content/uploads/2022/05/op55-everything-counts.pdf] (p. vi)

Russia recently announced that it planned to resume the practice of deploying nuclear weapons abroad. In a formal announcement on 25 March 2023, the Kremlin declared its intention to deploy non-strategic nuclear weapons in Belarus. Experts remain uncertain about whether the weapons have since been transferred to Belarusor where they might be stored.

While the current stockpile of Russian non-strategic nuclear weapons represents an important reduction compared to the Cold War, the Kremlin still attributes significant importance to them. The Russian non-strategic arsenal is seen by Moscow as offsetting the superior conventional forces of NATO, especially of the United States. In addition to addressing NATO's conventional capabilities, experts have argued that Russia also considers its non-strategic nuclear weapons as a means to counterbalance China's large and increasingly capable conventional military forces and to maintain nuclear parity with the combined forces of the United States, the United Kingdom and France.

Nuclear arms control in Europe

States pursue arms control to mitigate the likelihood of war. European arms control measures can be categorised along the following three dimensions.

European nuclear-weapon-free zones (NWFZ)

There have been multiple attempts at establishing a NWFZ in Europe but so far to no avail (see also LU06).

The Soviet Union first initiated discussions on a NWFZ in Europe in 1956 within the United Nations, but these discussions did not progress beyond the committee level. In 1958, the Polish government presented the Rapacki Plan, named after the Polish foreign minister, as a tangible proposal for a NWFZ in Central Europe. The proposed NWFZ would include the Federal Republic of Germany, the German Democratic Republic, Poland and Czechoslovakia, with other European countries having the option to join. Ultimately, however, the Rapacki Plan was rejected by NATO.

Proposals for a Nordic NWFZ or a NWFZ in the Balkans were discussed during the Cold War but never advanced to formal negotiations. Belarus proposed a NWFZ for Central and Eastern Europe in 1991, which did not materialise either.

Article VII of the nuclear 1968 Nonproliferation Treaty (NPT) affirms the right to establish NWFZ.

Limits and reductions in nuclear arsenals

The strategic level

Over the past five decades, the United States and the Soviet Union/Russia have concluded a number of agreements that limited and reduced their nuclear arsenals. The table below includes an overview of the key agreements pertaining to their strategic arsenals, the limitations they impose and the time period covered.

	SALT I	SALT II	START I	START II	START III	SORT	New START
Status	Expired	Never entered into force	Expired	Never entered into force	Never negotiated	Replaced by New START	In force
Deployed warhead limit	N/A	N/A	6,000	3,000–3,500	2,000–2,500	1,700–2,200	1,550
Deployed delivery vehicle limit	US: 1,764 ICBMs and SLBMs; USSR: 2,568	2,250	1,600	N/A	N/A	N/A	700
Date signed	26 May 1972	18 June 1979	31 July 1991	3 January 1993	N/A	24 May 2002	8 April 2010
Date entered into force	3 October 1972	N/A	5 December 1994	N/A	N/A	1 June 2003	5 February 2011
Expiration date	3 October 1977	N/A	5 December 2009	N/A	N/A	5 February 2011	5 February 2026

(Table based on the overview provided by the Arms Control Association. For more information on the bilateral treaties between the US and the Soviet Union/Russia see learning unit 20 `[/lu-20/]`. Source: `[https://www.armscontrol.org/factsheets/USRussiaNuclearAgreements]`)

In February 2023, the Kremlin announced the suspension of Russia's participation in New START.

The non-strategic level

While the vast majority of efforts in this regard have focused on strategic arsenals, **two major sets of initiatives**[5] focused on non-strategic nuclear weapons.

In 1987, the United States and the Soviet Union concluded the Intermediate-Range Nuclear Forces (INF) Treaty, which aimed to eliminate ground-launched ballistic and cruise missiles (and related launchers) with ranges of between 500 and 5,500 km. Over time, both sides raised concerns about compliance. The United States accused Russia of testing and developing prohibited missiles (the Novator 9M729 missile, also known as RS-SSC-8 Screwdriver). Specifically, the 9M729 is a ground-launched cruise missile with an estimated range of 2,500 km, thus exceeding the intermediate-range cutoff enshrined in the INF. Meanwhile, Russia denied that it had breached the INF and countered the accusation with allegations of US violations linked to missile defence systems. While the Aegis Ashore system is intended to intercept incoming ballistic missiles, Russia argued that it could easily be modified to launch INF-prohibited cruise missiles. Russia also expressed concerns that the United States is testing missile defence systems using target missiles that are similar to intermediate-range missiles. Lastly, Moscow has accused the United States of making armed drones that are functionally equivalent to ground-launched cruise missiles, which the INF also prohibits. The US government has consistently maintained that US actions in all three areas were either not prohibited by or not subject to the INF Treaty. In 2019, the United States formally withdrew from the INF Treaty because of concerns about both Russian non-compliance and China's growing missile arsenal.

In 1991, the US announced that it would unilaterally eliminate a number of non-strategic nuclear weapons and withdraw nearly all of them from deployment. In response, the Soviet Union committed to eliminate a large number of its own non-strategic nuclear weapons and pledged to withdraw non-strategic naval nuclear weapons from deployment. Experts estimate that these Presidential Nuclear Initiatives (PSI) led to a reduction of 5,000 non-strategic nuclear warhead deployments for the United States and 13,000 for the Soviet Union/Russia.

Challenges for nuclear arms control in Europe

There are several conceptual challenges to engaging in nuclear arms control talks in Europe today, even if we leave aside the political dimension.

Stand-alone or integrated approach

NATO and Russia have divergent views on whether it is best to address non-strategic nuclear weapons as a stand-alone category or not.

In the last few years, NATO has actively pursued initiatives to engage Russia in reducing risks

associated with non-strategic nuclear weapons. Efforts have included encouraging information exchanges on quantities of weapons, along with joint visits to former deployment sites.

While Russia has not rejected talks on non-strategic nuclear weapons outright, it has resisted NATO's proposals. The Kremlin insisted that any focus on these weapons must be part of a broader framework that also addresses its concerns regarding the weapons of other NATO countries. Specifically, it has made any reduction in its own arsenal of non-strategic nuclear weapons conditional upon the complete withdrawal of US forward-deployed nuclear weapons in Europe, discussions on missile defence, space and long-range non-nuclear systems and the conventional balance in Europe.

Qualitative versus quantitative focus

In the past, negotiations over formal arms control treaties focused on quantitative limitations to establish the desired balance between US and Soviet/Russian forces. This left both sides free to pursue qualitative improvements through modernisation and technological change, albeit on a reduced scale. Recent research, for example, has suggested that the strategic arms control agreements concluded during the Cold War enabled the United States to leverage its technological superiority to forge ahead. The arms control treaty limited the ability of the Soviet Union to effectively compete because it could no longer counter US qualitative improvements by increasing its own numerical strength.

The possibility of focusing mostly on quantitative measures is further undermined by the proliferation of non-nuclear technologies with strategic applications. Advances in precision, tracking, sensing and processing power today potentially enable states to threaten an adversary's nuclear systems with non-nuclear weapons, including, for example, conventional precision and prompt strike weapons, new methods of tracking and attacking nuclear-armed submarines or counter-space and anti-satellite technologies. The risk of cyber-attacks on nuclear systems, either directly or through hacking into command and control apparatus or indirectly through interference with early warning systems, poses additional challenges in this area. Taken together, these conditions emphasize the need to focus on qualitative outcomes, rather than quantitative inputs in arms control negotiations.

Verification of agreements on non-strategic nuclear weapons

Ensuring and verifying compliance with arms control agreements, particularly when it comes to non-strategic nuclear weapons, has been a persistent challenge. Compared to strategic arsenals, verifying compliance with agreements on non-strategic weapons poses greater difficulties due to factors such as ambiguous definitions, disparities in stockpiles and warhead movements. The aforementioned blurred line between the nuclear and non-nuclear domains further complicates verification efforts.

Regional versus global arms control approach

The present juncture marks a pivotal moment in US nuclear strategy, unprecedented since the dissolution of the Soviet Union. Previous arms control efforts primarily focused on the balance between the United States and Russia. However, there is a growing concern among US policymakers about China's rapid nuclear expansion. This emerging nuclear 'tripolar competition' is raising questions about whether arms control initiatives should embrace a multilateral approach, inclusive of China, or engage Russia and China separately, but concurrently.

View quiz at `https://eunpdc-elearning.netlify.app/lu-11/`

1. The FAS designates non-deployed weapons as those that are not currently deployed using launchers but in storage.
2. The FAS defines weapons in the military stockpile as those active and inactive warheads that are in the custody of the military and earmarked for delivery by commissioned delivery vehicles.
3. The Federation of American Scientists includes in its total inventory warheads in the stockpile as well as retired weapons that are waiting to be dismantled.
4. There is currently uncertainty regarding a potential redeployment of US nuclear weapons at the Royal Air Force airbase at Lakenheath in the United Kingdom. See below.
5. This discussion is based on the factsheet provided by the Arms Control Association, see [`https://www.armscontrol.org/factsheets/USRussiaNuclearAgreements`].

5. The role of the European Union

The EU's toolkit for arms control

The European Union (EU) has not been a party to the most prominent conventional and nuclear arms control agreements, which primarily resulted from the fact that negotiations were between Russia (and previously the Soviet Union), the United States and European states acting in their national capacity.

A major forum for conventional arms control and confidence-building measures in Europe is provided by the OSCE, where the EU has a presence but does not substitute EU members who are OSCE participating states.

Flags of the OSCE participating states at the 12th OSCE Economic Forum in Prague, 31 May 2004
OSCE/Mikhail Evstafiev (CC)

The EU has consistently stressed the importance of full compliance with and strict implementation, both in letter and spirit, of existing arms control and CSBM mechanisms and the need to update and adapt them to the evolving military and security environment.[1] However, the erosion of this arms control framework has significant implications for Europe, as these agreements are mainly focused on the European region. Despite not having played a major role in establishing the current arms control framework, the EU possesses several tools that it can use to leverage its economic, political and diplomatic influence in order to safeguard its interests in this realm.

Since adopting its **2003 Strategy against the Proliferation of Weapons of Mass Destruction (WMD)** (see also LU14) `[/lu-14]`, the EU has gradually established a role for itself in the field of arms control, non-proliferation and disarmament. The **2016 Global Strategy, for example, stresses that**

> the EU will strongly support the expanding membership, universalization, full implementation and enforcement of multilateral disarmament, non-proliferation and arms control treaties and regimes **[…]** The EU will actively participate in export control regimes, strengthen common rules governing member states' export policies of military – including dual use – equipment and technologies, and support export control authorities in third countries and technical bodies that sustain arms control regimes.
>
> European Union 2016

Another relevant document, the **2022 Strategic Compass** states that the EU

> will uphold, support and further advance the disarmament, non-proliferation and arms control framework. We will continue to support the centrality on the NPT and stress the need to implement all obligations under it, and commitments during previous review conferences, including the need for concrete progress towards the full implementation of article VI, with the ultimate goal of total elimination of nuclear weapons. We need to increase our capacities to control intangible transfers, including scientific knowledge where necessary. This entails protecting and reinforcing existing export control regimes. Confronted with new challenges emerging from new technologies, the EU remains committed to preserve the disarmament, non-proliferation and arms control architecture. A coordinated approach with partners is also essential in this regard.
>
> European Union 2016

Both the 2016 Global Strategy and the 2022 Strategic Compass confirm the continuity of the EU's efforts over time, particularly its support for existing multilateral disarmament, non-proliferation, and arms control treaties and regimes. Among others, the EU actively participates in export control regimes (see LU12) `[/lu-12/]`, supports the centrality of the Nuclear Non-Proliferation Treaty (NPT) and emphasises the need to fulfil all obligations and commitments from previous review conferences. This includes making tangible progress towards the full implementation of Article VI, with the ultimate goal of total nuclear disarmament. Additionally, the EU collaborates with international organisations such as the United Nations, the Organization for Security and Co-operation in Europe (OSCE) and the International Atomic Energy Agency (IAEA) to strengthen global arms control regimes.

The EU has a diverse array of tools it can draw on in the realm of arms control

Financial and technical assistance

The EU offers substantial financial and technical aid to support arms control efforts. This includes capacity building in third countries to regulate arms transfers,

prevent illicit trafficking, and implement international arms control agreements.

Common Foreign and Security Policy (CFSP)
Under Article 37 of the Treaty on the European Union (TEU), the EU can become a party to international agreements in the security domain.

Military and civilian missions
The EU can establish military and civilian missions for various purposes, including 'joint disarmament operations'.

Arms export control system
The EU maintains a comprehensive system for controlling arms exports.

Sanctions and arms embargoes
The EU has the competence to impose sanctions, including arms embargoes, against third states.

Weapons of mass destruction (WMD) clause
The EU incorporates a WMD clause alongside other conditionality clauses in political cooperation agreements with third parties. The WMD clause requires partner countries to comply with their non-proliferation obligations and encourages them to join relevant treaties they have not yet acceded to. The clause also enables the EU to terminate an agreement if a partner country breaches its commitments in this regard.

EU efforts and the way forward

For several decades, the European Union has been a very active player in arms control in Europe and beyond.[2] The EU's efforts have focused on various fields:

Conventional arms control and risk reduction
In the past, the EU underlined the need to overcome the stalemate on the CFE Treaty and its support for discussions leading to the restoration of a legally binding, sustainable, verifiable, and functional conventional arms control regime. The EU has also repeatedly expressed full support for the Open Skies Treaty and for the substantial modernisation of the Vienna Document. The EU's position is that functioning and relevant arms control and CSBMs could increase military stability, transparency, and predictability in Europe, reducing threat perceptions and incrementally building up trust.

Chemical weapons
The EU actively promotes compliance with the Chemical Weapons Convention (CWC) and provides important financial support to the Organization for the Prohibition of Chemical Weapons (OPCW). As the largest voluntary contributor to the OPCW, the EU funds initiatives aimed at the full implementation of the CWC. These initiatives include preventing the re-emergence of chemical weapons, building capacity in CWC member states, expanding CWC membership, and combating impunity for the use of chemical weapons. The EU has also imposed restrictive measures on the Syrian regime and associated individuals in response to their chemical weapons use. Additionally, Russian and Syrian individuals implicated in chemical weapons attacks have been placed on a sanctions list.

Biological weapons
The EU promotes adherence to the Biological Weapons Convention (BWC) and has provided financial assistance, primarily for capacity-building activities in the Global South.

Space
The EU supports the peaceful use of outer space, adherence to international law, and the prevention of an arms race in outer space.

Nuclear weapons
Most EU activities in the nuclear realm have focused on non-proliferation rather than on arms control or disarmament, largely due to internal disagreements on the latter. France is the only EU member state with nuclear weapons, while Belgium, Germany, Italy, and the Netherlands host US forward-deployed nuclear weapons. Austria, Ireland, and Malta are party to the Treaty on the Prohibition of Nuclear Weapons (TPNW), which prohibits the production, transfer, threat, or use of nuclear weapons under any circumstance. This variation in attitudes towards nuclear weapons among EU member states has made it problematic for the EU to present a unified stance. This challenge was evident, for instance, in the EU's inability to articulate common priorities ahead of the 2015 Review Conference of the NPT.

1. See, for example, [https://www.osce.org/files/f/documents/7/2/351526.pdf]
2. More detailed information can be found in learning units 02, 03, 05, 08 and 14.

6. The future of European arms control

With the existing European arms control system in disarray and Russian aggression against Ukraine continuing, the feasibility of returning to measures involving numerical reductions of weapons or personnel, restraint in military activities and other cooperative arms control measures is questionable. Given the illegality and brutality of Russia's invasion of Ukraine, premature arms control outreach might be seen as indirectly normalising or legitimising Russian behaviour. Recent experiences with the INF, Open Skies and CFE Treaties may raise doubts as to whether the necessary level of confidence regarding the implementation of any future arms control commitments by a potential adversary could be achieved.

Ideas such as a moratorium on intermediate-range missile deployments in Europe are still being discussed. However, as long as Russia's war on Ukraine continues, the conditions for reaching durable arms control agreements in Europe, which includes the existence of mutual interest in maintaining strategic stability, are not met. This does not preclude implementing basic risk reduction measures, such as maintaining military channels for emergency communication and incident prevention, however.

Arms control measures could potentially play an important role in the aftermath of Russia's war against Ukraine. Even if the cornerstone of the security system in Europe is likely to be a mix of conventional and nuclear deterrence, arms control instruments may be useful in managing the confrontation and reducing the risk of a direct conflict between NATO and Ukraine, on the one side, and Russian forces, on the other. The precondition for restoring European arms control would be renewed interest from all sides in establishing the rules of the game and introducing basic transparency and predictability regarding deployment and activities of military forces as well as in maintaining effective communication channels for crisis management and de-escalation. In the short term, reductions of nuclear and conventional forces in Europe through arms control would probably be more difficult to achieve, given the emphasis on strengthening military capabilities that dominates in most European states.

Even in more favourable strategic conditions, several factors would shape the development of a future arms control system in Europe.

Strategic and political landscape in Europe: Feasibility of arms control measures will depend on the dynamics of European security. The outcome of Russia's war on Ukraine will play a key role in establishing the framework for any potential arms control agreements. Ukraine's progress towards NATO membership and the future role of the US in European security would also influence the prospects of European arms control.

Military balance: The post-war balance of military power between Russia, NATO and Ukraine may make it challenging to agree arms control measures based on equal ceilings and proportional reductions, especially as all sides will most likely continue introducing new weapons systems for use by their armed forces. Western countries would have overall numerical and qualitative advantage over Russia in most areas (with the exception of non-strategic nuclear weapons). This would make it difficult to establish a balance between adversaries through equal arms control limitations. New asymmetric or package approaches to arms control could be developed, including for example unequal ceilings or a broader range of systems and capabilities.

The scope of European arms control: The technological progress and lessons from Russia's war on Ukraine will need to be factored in when designing new arms control and transparency measures to prevent the outbreak of war. The importance of including CFE's five categories of Treaty-Limited Equipment – tanks, armoured combat vehicles, heavy artillery, combat aircraft and attack helicopters – in CAC agreements has been confirmed by the latest conflicts. Future confidence-building or arms control arrangements would need to address long-range ballistic, hypersonic and cruise missiles, certain categories of unmanned systems, missile defence systems, potentially also major naval forces and non-strategic nuclear weapons. The European arms control agenda would also need to be linked with global discussions on the control of lethal autonomous weapons, arms control in space and responsible use of AI.

Verification: The new generation of European arms control agreements would probably use the verification approaches of previous treaties, including information exchange and on-site inspection protocols. These would need to be augmented by adding verification technologies using new monitoring, gathering and data analysis tools. Open source analysis and societal verification may play an increasingly important role in supporting formal methods of arms control verification.

FURTHER READING

Conventional arms control

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Terms

dual-capable
Delivery system capable of delivering both nuclear and conventional warheads

delivery vehicle
Nuclear weapons can be delivered to an intended target with a variety of delivery vehicles, including bombers and dual-capable aircraft for aerial deployment, submarines for sea-based delivery, and missiles for land-based deployment

Nuclear weapons
A nuclear weapon is a device built to unleash large destructive power by rapidly releasing nuclear energy through either nuclear fission alone (as seen in the bombs dropped on Hiroshima and Nagasaki) or through a combination of fission and fusion (as in thermonuclear or hydrogen bombs). Beyond their immediate impact, nuclear weapons also pose a threat to human life due to the dispersal of radioactive fallout.

Confidence- and Security Building Measures (CSBMs)
Arrangements to increase trust between countries by introducing transparency and predictability regarding operations of the armed forces and other measures to demonstrate the lack of aggressive intentions

1992 Treaty on Open Skies
The 1992 Open Skies Tretay, which entered into force in 2002, allows for other participants to conduct observation flights to over the whole territory over which a State Party exercises sovereignty, with the aim of improving openness and military transparency.

1990 Conventional Forces in Europe Treaty
Described as the cornerstone of European security, the 1990 Treaty on Conventional Armed Forces in Europe established numerical limits and verification measures for five categories of weapons: tanks, armoured combat vehicles, heavy artillery, combat aircraft and attack helicopters