

How can Germany become a Member of the Ban Treaty

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Program on Science and Global Security



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Detailed image references at the end of the presentation.

OUTLINE

1. Germany: A NU Perspective
2. More on Tactical Nuclear Weapons
3. (Domestic) Politics
4. Joining the Ban Treaty
5. Verification Options
6. Conclusion / Recommendations

GERMANY: A NU PERSPECTIVE

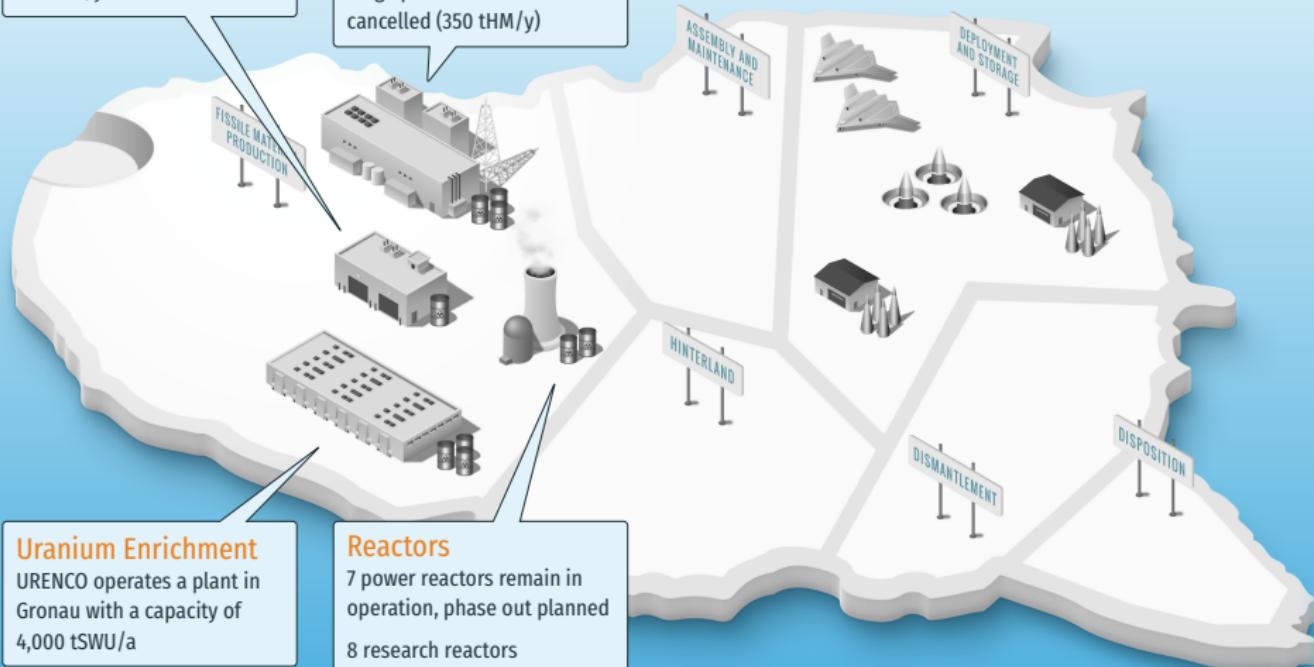
GERMANY IN COLD WAR TIMES

Fuel Fabrication

Framatome operates a plant in Lingen with a capacity of 650tHM/y

Reprocessing

Pilot plant in Karlsruhe, shutdown 1991 (35 tHM/y), Large plant in Wackersdorf cancelled (350 tHM/y)



Uranium Enrichment

URENCO operates a plant in Gronau with a capacity of 4,000 tSWU/a

Reactors

7 power reactors remain in operation, phase out planned 8 research reactors

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Mining / Conversion

(West) Germany never had significant mining/conversion capacities

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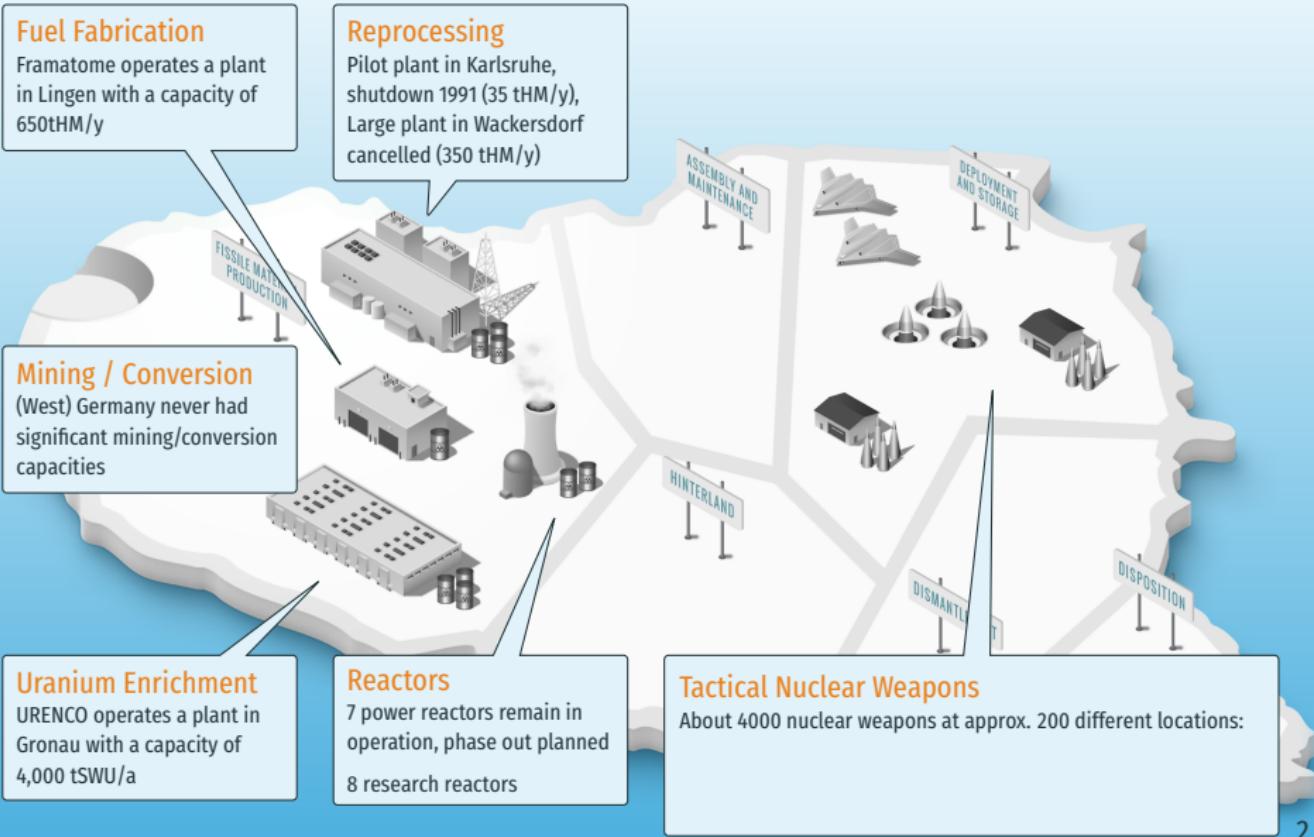
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About 4000 nuclear weapons at approx. 200 different locations:



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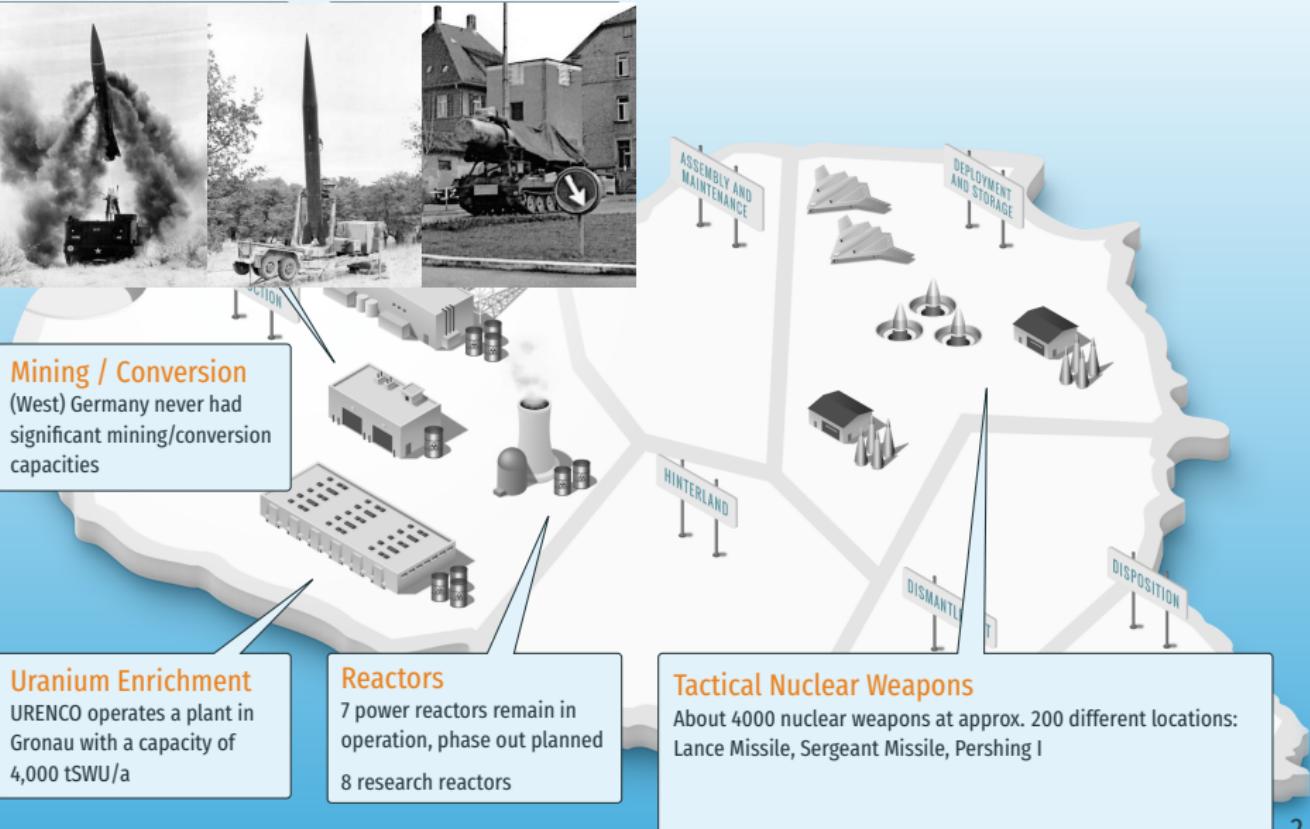
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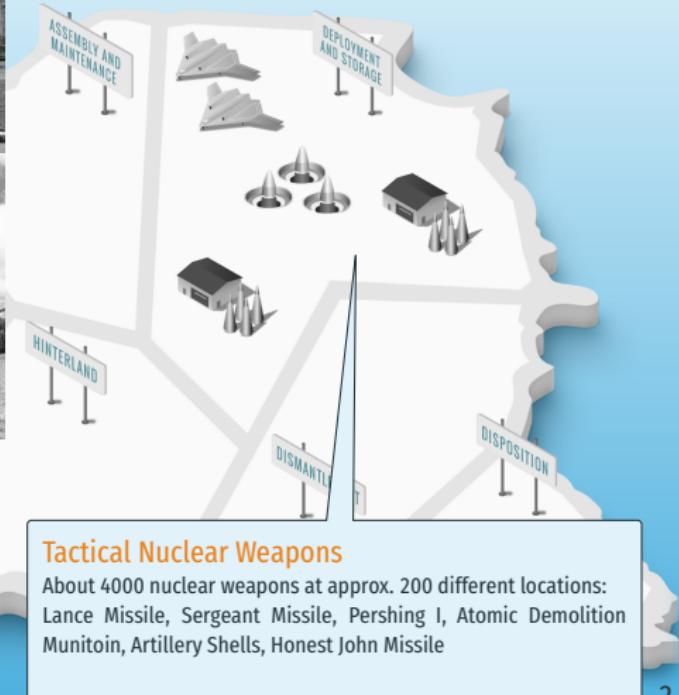


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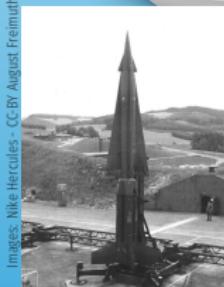
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GERMANY IN COLD WAR TIMES

Images: Nike Hercules - CC BY August Freimuth, others - Public Domain, U.S. Federal Government works, downloaded from Wikimedia Commons



Tactical Nuclear Weapons

About 4000 nuclear weapons at approx. 200 different locations:
Lance Missile, Sergeant Missile, Pershing I, Atomic Demolition Munition, Artillery Shells, Honest John Missile, Nike Anti Aircraft Missile, Gravity Bombs, Pershing II, ...

GERMANY TODAY

Fuel Fabrication

Framatome operates a plant in Lingen with a capacity of 650tHM/y

FISSILE MATERIAL PRODUCTION

ASSEMBLY AND MAINTENANCE

DEPLOYMENT AND STORAGE



HINTERLAND

DISMANTLE

DISPOSITION

Uranium Enrichment

URENCO operates a plant in Gronau with a capacity of 4,000 tSWU/a

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Tactical Nuclear Weapons

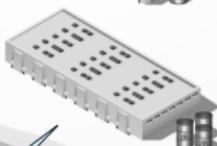
20 B61 gravity bombs in one location (Büchel air base)

NUCLEAR POWER PHASE OUT: 2023

Fuel Fabrication

Framatome operates a plant in Lingen with a capacity of 650tHM/y

FISSILE MATERIAL PRODUCTION



Uranium Enrichment

URENCO operates a plant in Gronau with a capacity of 4,000 tSWU/a

Reactors

Power reactors are shut down
Only research reactors remain

ASSEMBLY AND MAINTENANCE



DEPLOYMENT AND STORAGE



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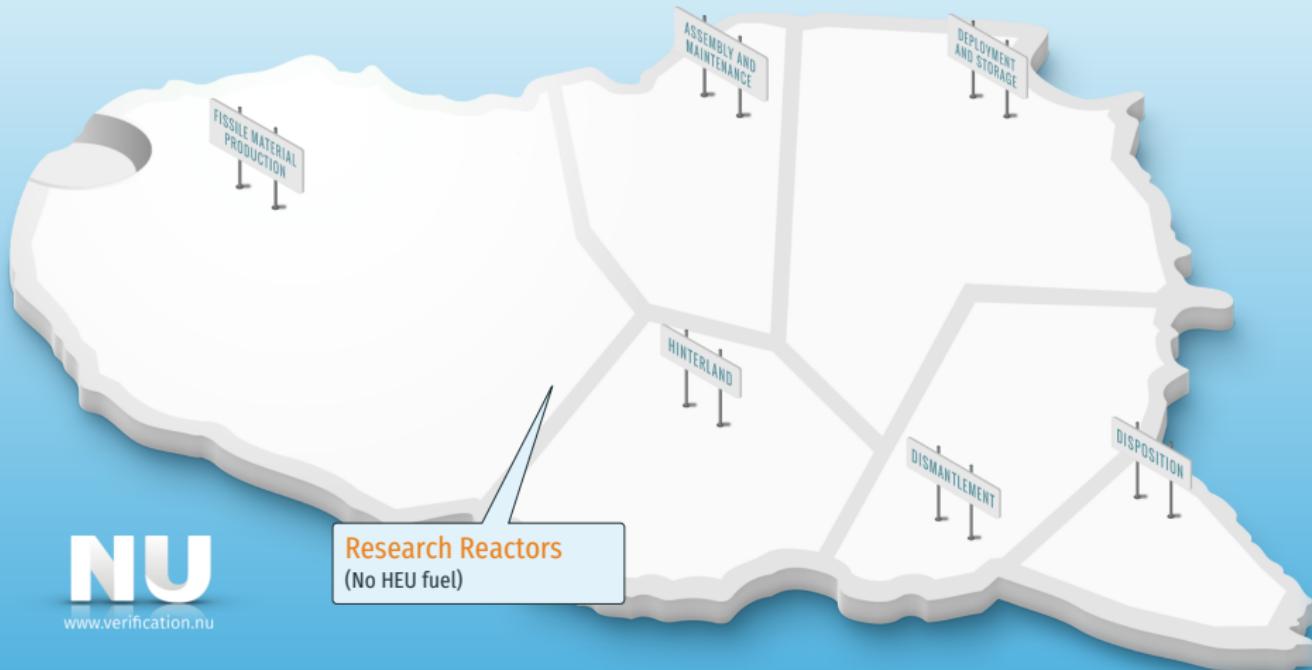
DISPOSITION

Tactical Nuclear Weapons

20 B61 gravity bombs in one location (Büchel air base)

A FUTURE GOAL?

With a shrinking world nuclear energy market (and no domestic requirements), uranium enrichment and fuel fabrication facilities could be closed.



MORE ON TACTICAL NUCLEAR WEAPONS

ORIGINS OF NATO NUCLEAR SHARING

North Atlantic Treaty (1949)

No statements with regard to nuclear weapons

First Strategic Concept (1949)

Insure the ability to carry out strategic bombing including the prompt delivery of the atomic bomb. This is primarily a U.S. responsibility assisted as practicable by other nations.

M.C. 3/2, Note by the Secretary to the North Atlantic Military Committee on the Strategic Concept for the Defense of the North Atlantic Area, 1949, p. 23

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North Atlantic Council Meeting (1957)

To this end, NATO has decided to establish stocks of nuclear warheads, which will be readily available for the defence of the Alliance in case of need.

Final Communiqué, Chairman: Mr. P.H. Spaak, Secretary General of NATO, December 16 1957

Defense and Deterrence Posture Review (2012)

As long as nuclear weapons exist, NATO will remain a nuclear alliance.

[...] seeking to create the conditions and considering options for further reductions of non-strategic nuclear weapons [...]

NATO, 'Deterrence and Defence Posture Review', 2012

20 B61 gravity bombs, Fliegerhorst Büchel



Image Source: CC-BY-SA 3.0, Stahlkocher, Wikimedia Commons

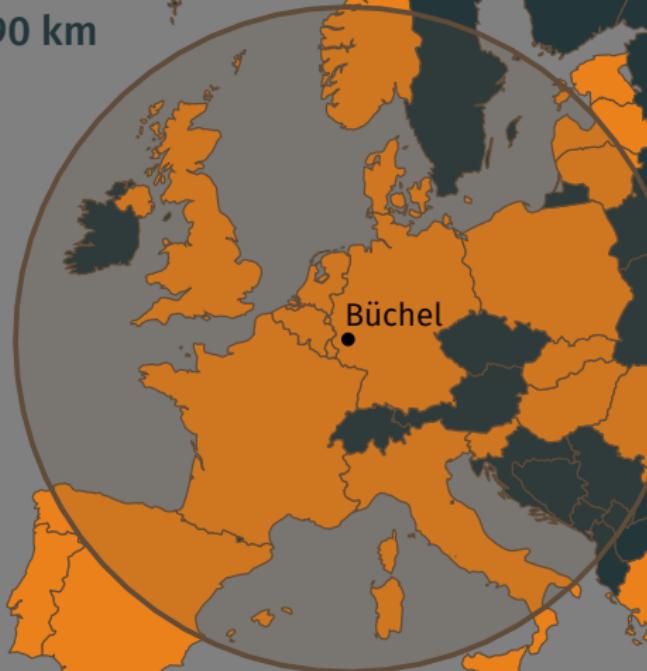
Büchel is a German Airbase in Rheinland Pfalz since 1958, hosts the "Taktische Luftwaffengeschwader 33"

B61 gravity bombs are to be delivered with German Tornado aircraft

Weapons are stored in vaults in hangars "Weapon Storage and Security System" (WS3)

WHAT WOULD BE A CREDIBLE SCENARIO OF USE?

Tornado has an operating
radius of 1390 km





Longer missions require refueling, which can only be done by aircrafts of other countries.

OUTDATED AND ERROR PRONE

End-of-life for Tornado aircraft soon, probably 2025.

Last year, only 26 of 93 Tornado aircraft were combat-ready.

Der Gesamtbestand Bundeswehr an TORNADO lag konstant bei 93 Luftfahrzeugen. Abzüglich der Luftfahrzeuge, die für die technische Ausbildung, für Erprobungszwecke an das BAAINBw sowie zu Instandhaltungs- und Hochrüstmaßnahmen an die Industrie abgegeben waren, standen der Luftwaffe im betrachteten Zeitraum durchschnittlich 63 Luftfahrzeuge zur Verfügung. Im Schnitt waren davon 26 Luftfahrzeuge einsatzbereit; dies entspricht im Mittel einer materiellen Einsatzbereitschaft von ca. 41%.

"Bericht zur materiellen Einsatzbereitschaft der Hauptwaffensysteme der Bundeswehr 2017",
German Ministry of Defense, February 2018.

REPLACEMENT OPTIONS

Eurofighter

European cooperative project by multinational Eurofighter Jagdflugzeug GmbH, Germany currently owns 128 planes
None is capable to carry the B61(-12), and adjustments are unlikely

F35

US fighter jet by Lockheed Martin
Produced in the US, and in Italy
Capability to deliver B61-12 (planned)

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POLITICAL SITUATION IN GERMANY

GOVERNMENT POSITION (ON TACTICAL NUCLEAR WEAPONS)

Deterrence is necessary as long as nuclear weapons can be means of military conflicts

NATO is a nuclear alliance

Through nuclear sharing, Germany can remain part of NATO's nuclear planning

Solange nukleare Waffen ein Mittel militärischer Auseinandersetzungen sein können, besteht die Notwendigkeit zu nuklearer Abschreckung fort. Die strategischen Nuklearfähigkeiten der Allianz, insbesondere die der USA, sind der ultimative Garant der Sicherheit ihrer Mitglieder. Die NATO ist weiterhin ein nuklares Bündnis. Deutschland bleibt über die nukleare Teilhabe in die Nuklearpolitik und die diesbezüglichen Planungen der Allianz eingebunden. Dies geht einher mit dem Bekenntnis Deutschlands zu dem Ziel, die Bedingungen für eine nuklearwaffenfreie Welt zu schaffen.

Weißbuch 2016 zur Sicherheitspolitik und zur Zukunft der Bundeswehr, p. 65

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Committed to establish conditions for a world free of nuclear weapons

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GOVERNMENT POSITION (ON BAN TREATY)

Again

Support for the goal of a world without nuclear weapons and concrete nuclear disarmament steps

But There are Concerns

Ban Treaty is a danger for NPT and related non-proliferation and disarmament regime

States could see Ban Treaty as an alternative, therefore leave the NPT

Special concern: Verification (Lower verification standards as compared to NPT)

Die Bundesregierung teilt und unterstützt das Ziel einer Welt ohne Nuklearwaffen. Wir stehen aktiv für dieses Ziel ein, indem wir uns entschieden für konkrete nukleare Abrüstungsschritte einsetzen. [...] Der aktuell verhandelte Verbotsvertrag ist nach Ansicht der Bundesregierung nicht förderlich, um dem Ziel einer nuklearwaffenfreien Welt näher zu kommen. Im Gegenteil, ein solcher Ansatz droht dem bestehenden, von 191 Staaten Ratifizierten Nuklearen Nichtverbreitungsvertrag (NNV) und dem mit ihm verbundenen Kontrollregime zur Verhinderung nuklearer Proliferation nachhaltigen Schaden zuzufügen sowie das globale Nonproliferations- und Abrüstungsregime zu gefährden. Denn es kann nicht ausgeschlossen werden, dass Staaten einen Verbotsvertrag als Alternative zum NNV ansehen, im schlimmsten Fall letzteren verlassen könnten. Unsere Besorgnis gilt insbesondere der wichtigen Frage der Verifikation: Nach derzeitigem Stand droht das geplante Atomwaffenverbot hinter die heute vorherrschenden Verifikationsstandards der Internationalen Atomenergie-Organisation (IAEO) und der NNV-Vertragsstaaten zurückzufallen und dadurch den NNV zu schwächen.

(SELECTED) FOREIGN MINISTERS

Guido Westerwelle, FDP †

Removal of tactical nuclear weapons was one of his key policy initiatives
Initiated (with colleagues) NATO discussion that lead to Chicago Summit 2012 declaration

Sigmar Gabriel

While still being foreign minister, he supported SPD's chancellor candidate Martin Schulz, who announced removal of tactical nuclear weapons as part of his campaign

Heiko Maas

Designated new foreign minister, previously head of ministry of justice
No public position on tactical nuclear weapons (yet)

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POLITICAL PARTIES (2017 FEDERAL ELECTIONS)

SPD: "A world without Nuclear Weapons and other WMDs remains our goal. [...] We stand for the withdrawal of tactical nuclear weapons from Germany and Europe as part of a European disarmament treaty."



Linke: The last US nuclear weapons stationed in Germany must be removed and destroyed immediately. [...] DIE LINKE stands for the abolition of nuclear weapons under international treaties.



Grüne: "Worldwide disarmament must become a cornerstone of German and European foreign policy - especially in troubling times. We fight for a world without nuclear weapons and to outlaw them by an international convention. [...] We demand withdrawal of the nuclear weapons in Büchel and final abandoning of 'nuclear sharing'."



CDU: Nothing for 2017



FDP: "We need [...] a new diplomatic approach for arms control and disarmament. Germany and its close partners should take a leading role in this." (p. 105)



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CDU: Nothing for 2017.
2013: "We will support every initiative to reduce nuclear weapons and limit conventional forces that is fair and serves international security. An agreement on drastic reductions of nuclear weapons creates the prospect to strengthen the regime for non-proliferation of WMD [...]"



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(SOME) CIVIL SOCIETY ACTORS

ICAN Germany

Part of ICAN, formally organized since 2014, based mostly in Berlin.

IPPNW Germany

National branch of IPPNW, founded in 1982.

Trägerkreis Atomwaffen abschaffen

Longstanding collaboration between various local groups. Most prominent campaign in recent past was "atomwaffenfrei.jetzt!".

Heinrich Böll Stiftung

Political foundation, close to Bündnis 90/Grüne. Supports research work of ICAN Germany.

...depends on the question asked.

Recent ICAN Germany survey:
71% for ban, 14% against, 15% undecided

Source for Survey: icanw.de

TREATY ON THE PROHIBITION OF NUCLEAR WEAPONS (BAN TREATY)

RELEVANT ARTICLES

Article 1 Prohibitions

1. Each State Party undertakes never under any circumstances to:
 - (b) Transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly or indirectly;
 - (c) Receive the transfer of or control over nuclear weapons or other nuclear explosive devices directly or indirectly;
 - (d) Use or threaten to use nuclear weapons or other nuclear explosive devices;
 - (e) Assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Treaty;
 - (f) Seek or receive any assistance, in any way, from anyone to engage in any activity prohibited to a State Party under this Treaty;
 - (g) Allow any stationing, installation or deployment of any nuclear weapons or other nuclear explosive devices in its territory or at any place under its jurisdiction or control.

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OTHER RELEVANT ARTICLES

Article 2 Declarations

1. Each State Party shall submit to the Secretary-General of the United Nations, not later than 30 days after this Treaty enters into force for that State Party, a declaration in which it shall:
 - (a) Declare whether it owned, possessed or controlled nuclear weapons or nuclear explosive devices and eliminated its nuclear-weapon programme, including the elimination or irreversible conversion of all nuclear-weapons-related facilities, prior to the entry into force of this Treaty for that State Party;
 - (c) Notwithstanding Article 1(g), declare whether there are any nuclear weapons or other nuclear explosive devices in its territory or in any place under its jurisdiction or control that are owned, possessed or controlled by another State.

OTHER RELEVANT ARTICLES

Article 2 Declarations

1. Each State Party shall, in accordance with the United Nations Charter, declare to the Secretary-General of the United Nations, within three months after this Article enters into force in respect of it, the conditions in which it shall:

- (a) Declaring that it has no nuclear weapons or other explosive devices in its territory or in any place under its jurisdiction or control that are owned, possessed or controlled by another State;
- (b) Declaring that it has no nuclear weapons or other explosive devices in its territory or in any place under its jurisdiction or control that are owned, possessed or controlled by another State;
- (c) Declaring that it has no nuclear weapons or other explosive devices in its territory or in any place under its jurisdiction or control that are owned, possessed or controlled by another State;

submit to the Secretary-General of the United Nations, within three months after this Article enters into force in respect of it, the conditions in which it shall:

Article 4

- ### *Towards the total elimination of nuclear weapons*
5. Notwithstanding Article 1 (b) and (g), each State Party that has any nuclear weapons or other nuclear explosive devices in its territory or in any place under its jurisdiction or control that are owned, possessed or controlled by another State shall ensure the prompt removal of such weapons, as soon as possible but not later than a deadline to be determined by the first meeting of States Parties. Upon the removal of such weapons or other explosive devices, that State Party shall submit to the Secretary-General of the United Nations a declaration that it has fulfilled its obligations under this Article.

6. Each State Party to which this Article applies shall submit a report to each meeting of States Parties and each review conference on the progress made towards the implementation of its obligations under this Article, until such time as they are fulfilled.

OTHER RELEVANT ARTICLES

Article 8 Meeting of States Parties

1. The States Parties shall meet regularly in order to consider and, where necessary, take decisions in respect of any matter with regard to the application or implementation of this Treaty, in accordance with its relevant provisions, and on further measures for nuclear disarmament, including:
 - (a) The implementation and status of this Treaty;
 - (b) Measures for the verified, time-bound and irreversible elimination of nuclear-weapon programmes, including additional protocols to this Treaty;
 - (c) Any other matters pursuant to and consistent with the provisions of this Treaty.

2. The first meeting of States Parties shall be convened by the Secretary-General of the United Nations within one year of the entry into force of this Treaty. Further meetings of States Parties shall be convened by the Secretary-General of the United Nations on a biennial basis, unless otherwise agreed by the States Parties. The meeting of States Parties shall adopt its rules of procedure at its first session. Pending their adoption, the rules of procedure of the United Nations conference to negotiate a legally binding instrument to prohibit weapons, leading towards their total

Article 2 Meetings

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Meetings

Article 4
Towards the total elimination of nuclear weapons

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HOW CAN GERMANY BECOME A MEMBER OF THE BAN TREATY?

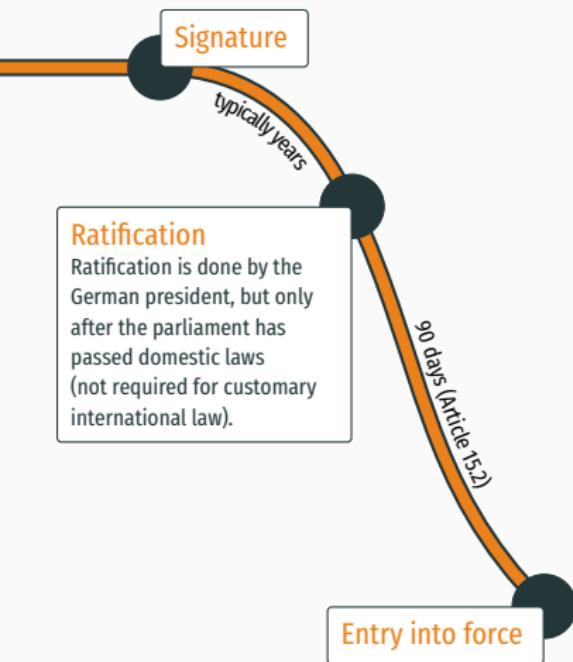


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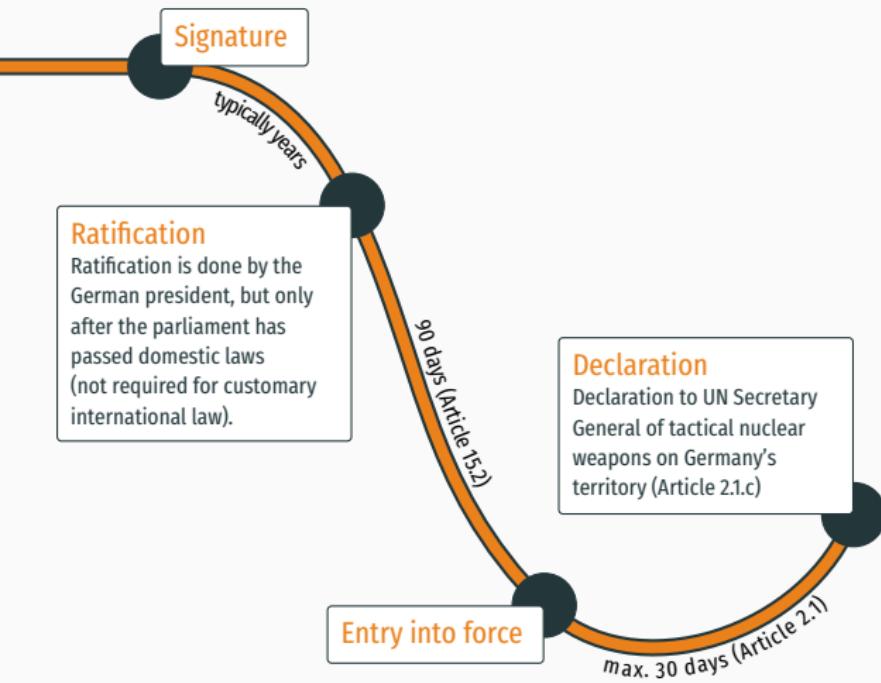
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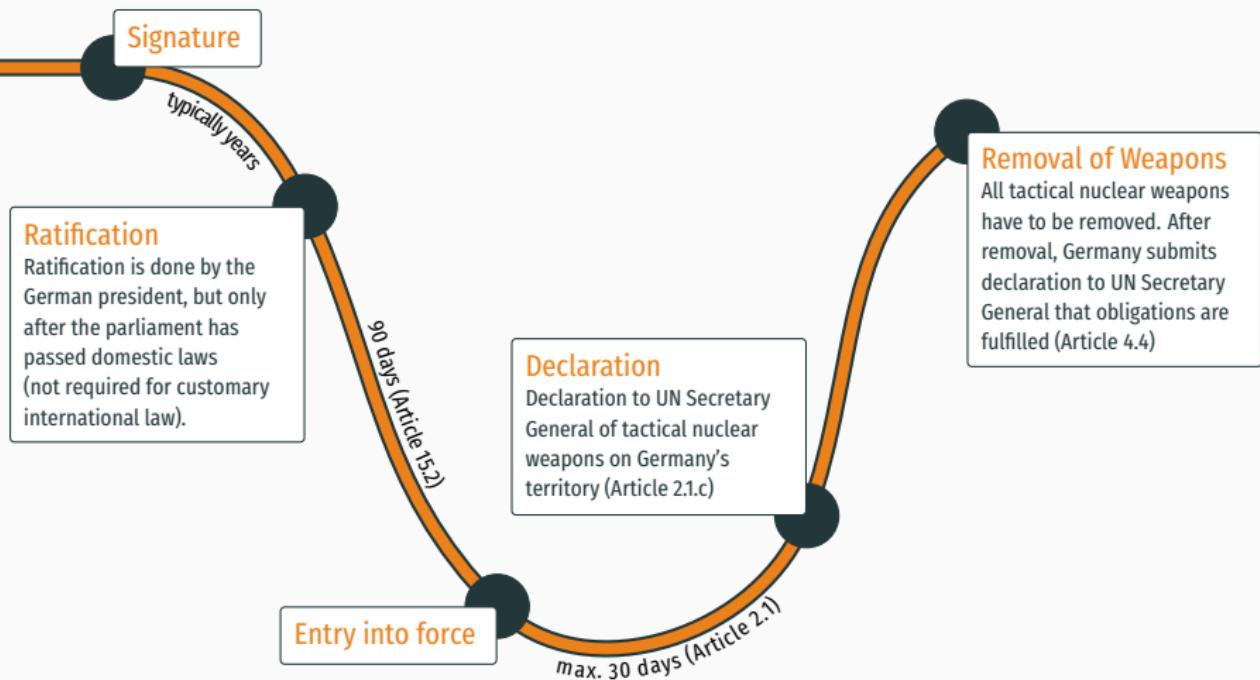
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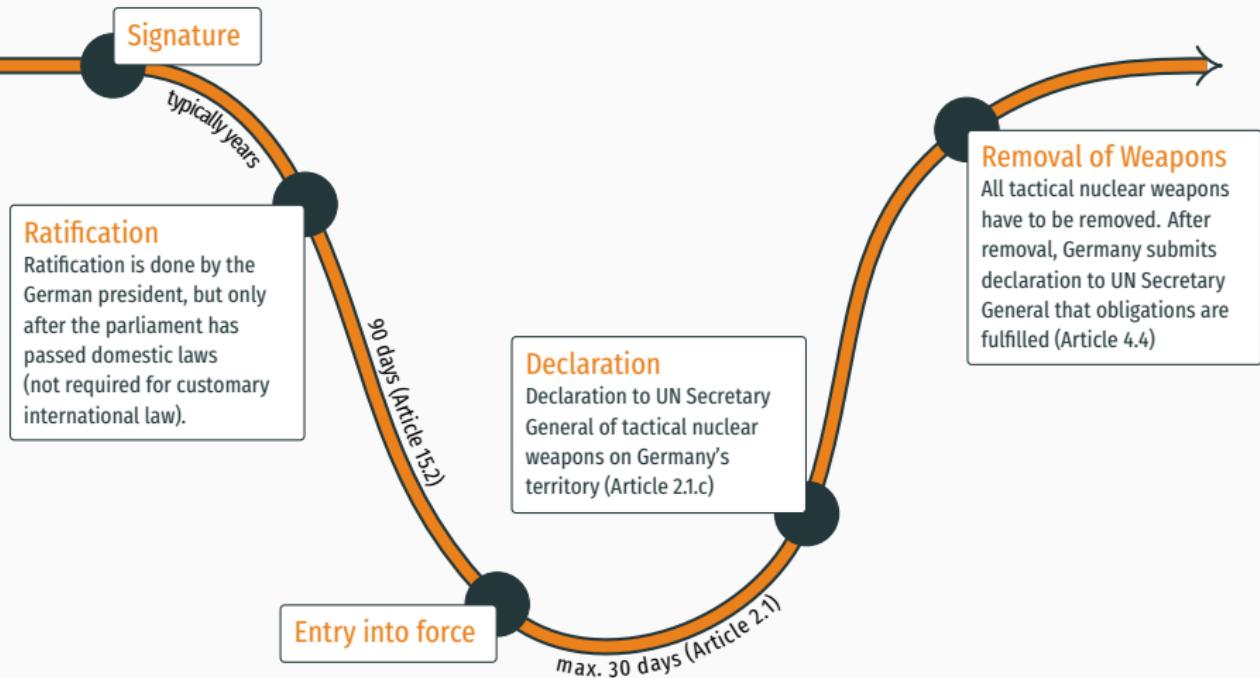
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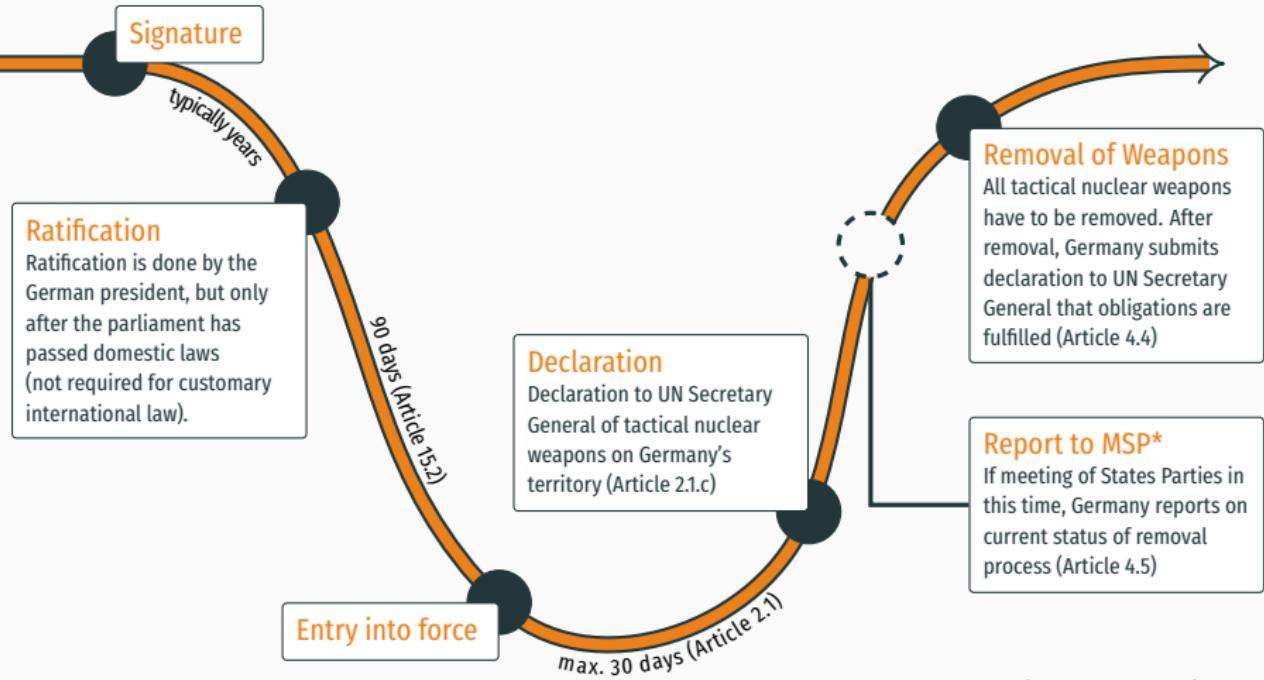
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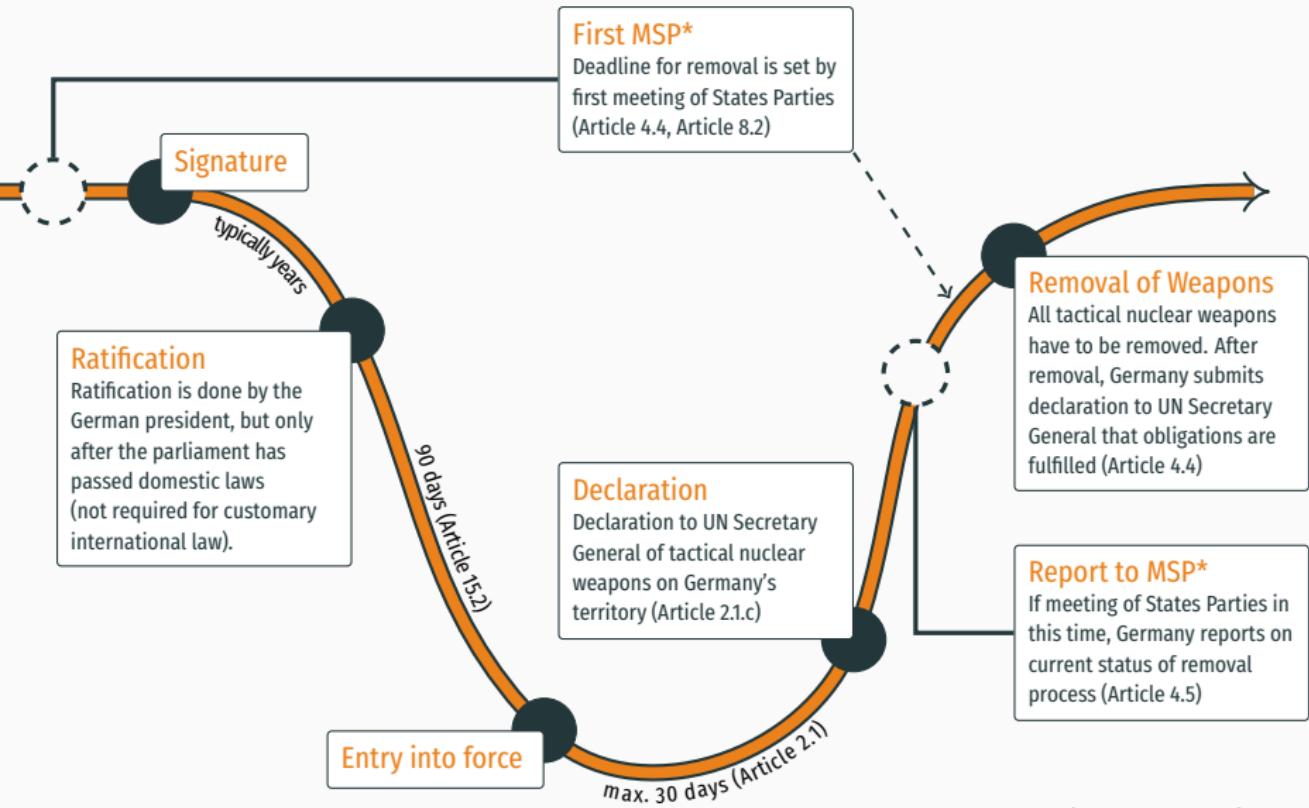


HOW CAN GERMANY BECOME A MEMBER OF THE BAN TREATY?



*MSP = Meeting of State Parties

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MOST LEGISLATION FOR RATIFICATION IN PLACE

Kriegswaffenkontrollgesetz (KrWaffKontrG)

Law to control weapons of war

§ 17 Prohibition of Nuclear Weapons

Forbidden are: development, production, trade, import, export, transit/transport, having control over nuclear weapons

§ 19 Fines and Penalties (Nuclear Weapons)

Law includes exemptions for NATO nuclear sharing and Elimination of nuclear weapons

Strafgesetzbuch (StGB)

Criminal Code

§ 307 Causing an explosion with nuclear energy

§ 328 Unallowed handling of radioactive materials and other dangerous materials and goods

Legislative To Do List

1. Remove NATO nuclear sharing exemption
2. Introduce regulations prohibiting threat of use of nuclear weapons

AFTER JOINING THE TREATY

Other Actions Required

- Keep safeguards agreements in place
- Leave NATO nuclear planning group
- Participate at meetings of State Parties and convince other countries to join

Some (speculative) Implications

- Germany's ratification could motivate other countries to join, triggering a (small) wave of signatories
- A joint European approach strengthens european collaboration with regard to defense strategies
- Less tactical nuclear weapons - lower security risk (unintended use, malfunction)
- Removal of tactical weapons could be a trigger for other arms control negotiations

VERIFICATION OPTIONS

HOW TO VERIFY THE REMOVAL OF SOMETHING
SECRET THAT GETS TRANSPORTED SECRETLY OUT OF
THE COUNTRY?

OPTION 1: "WE TRUST YOU"

No verification of warhead removal

1. Germany asks US to take weapons back
2. Weapons are transferred to US
3. Germany declares removal to UN Secretary General

OPTION 2: "MONITOR TRANSPORT"

Verification of absence in single location

1. Germany asks US to take weapons back
2. While weapons are transferred, the transfer is monitored
3. Germany declares removal to UN Secretary General

OPTION 3: "DECLARED LOCATIONS"

Verification of absence in multiple locations

1. Germany asks US to take weapons back
2. Several (only one?) location is visited by foreign inspectors to certify no weapons are present.
3. Germany declares removal to UN Secretary General

There are numerous locations that hosted tactical nuclear weapons in the past. Comprehensive Confidence Building Measures could include access to all these facilities.

OPTION 4: "ALL-OUT VERIFICATION"

Verification of absence in randomly picked locations

1. Germany asks US to take weapons back
2. Several (only one?) location is visited by foreign inspectors to certify no weapons are presence.
3. Germany declares removal to UN Secretary General
4. (Verification continues)

Addon 1: (No) Warhead Verification

Use removal as a test bed for verification technologies (one could proof that at all objects removed are equal).

Alternative: "Ceci n'est pas une bombe"

Addon 3: Delivery System

Having no capable delivery systems could be an indication that weapons are gone.

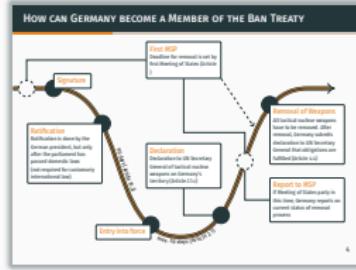
Addon 2: Joined European Approach

Other nuclear sharing countries might also request removal

Addon 4: Activation

Warhead (neutron sources) are stored in underground vaults. What can we learn from possible activation measurements?

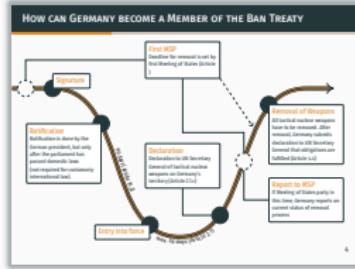
SUMMARY / CONCLUSION



Verification Options

We Trust You!
Monitor Transport
Declared Locations
All-out Verification

SUMMARY / CONCLUSION



Verification Options

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Final Thoughts

Joining the Ban Treaty is possible for Germany
Implications can be promising, should be studied further
Verification is not required, but options exist

Recommendations for Activists/Lobbyists

Advocate jointly for removal and joining of ban treaty
Work jointly with other nuclear sharing states

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