

# Introduction

## A Guide to the World's Nuclear Warheads Count

"The World's Nuclear Warheads Count" is an easily understood illustration of the current state of the world we live in, showing more than 13,000 nuclear warheads in the world by country and by type.

The PCU Nagasaki Council for Nuclear Weapons Abolition (PCU-NC) and the Research Center for Nuclear Weapons Abolition, Nagasaki University (RECNA) began producing this poster in 2013 as an educational resource for all audiences, from elementary school students to adults.

As part of the peace education efforts toward Hiroshima's and Nagasaki's Atomic Bomb Memorials in August, we present annual updates on the latest information every June.

We hope this guide will aid those using the poster in understanding background information and terminology in simple, plain terms. It should be especially useful in the education field, particularly in schools.

The detailed data of this poster, which was compiled by the "RECNA Nuclear Warhead Data Monitoring Team," including RECNA staff, has been published on our website:

[https://www.recna.nagasaki-u.ac.jp/recna/en-nwdata/list\\_of\\_nuclear](https://www.recna.nagasaki-u.ac.jp/recna/en-nwdata/list_of_nuclear)



Please see the website for further details. This data is updated from time to time.

June 2020  
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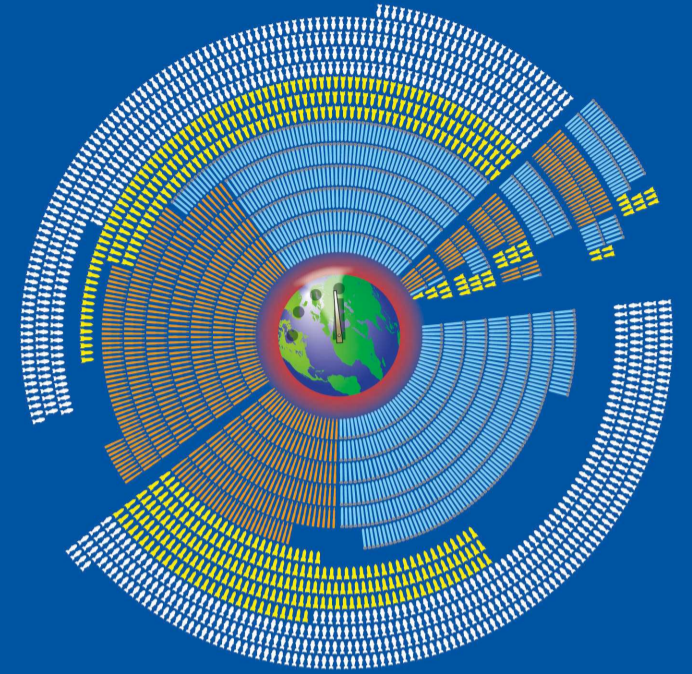
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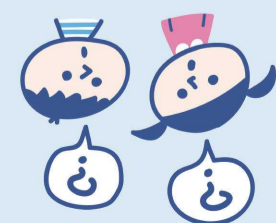
## June 2020



# 13,410



## Frequently Asked Questions



**Q1** What is the difference between a "nuclear warhead" and a "nuclear weapon"?

A "warhead" is the part of a nuclear weapon that causes an explosion. In general the combination of the warhead and the missiles onto which it is loaded are referred to as a "nuclear weapon."

**Q2** What is the difference between a "nuclear weapon" and an "atomic bomb"?

An atomic bomb (A-bomb) is a type of nuclear weapon. It uses the energy released by the fission of a uranium or plutonium nucleus. In addition, there is a hydrogen bomb (H-bomb), which uses the more powerful energy from the fusion of hydrogen nuclei.

**Q3** What is the difference between a nuclear weapon and other weapons?

Nuclear weapons generate explosive force of tens of thousands to hundreds of thousands of times the power of conventional bombs, and high temperatures that can even melt steel. Moreover, they result in many fatalities due to their power radiation, and cause long-lasting physical and mental pain and suffering to those exposed to them. This is why they are also referred to as "weapons of mass destruction" and "inhumane weapons."

**Q4** Is nuclear testing still being conducted?

Since 1945 over 2,000 nuclear tests have been conducted over the world, causing massive damage to humans and the environment. The latest nuclear test was conducted by North Korea in September 2017. The Comprehensive Test Ban Treaty (CTBT) that prohibits any kind of nuclear explosion testing has still not come into effect even though 20 years have now elapsed since its establishment. The United States and other nations have carried out "subcritical nuclear tests" that do not cause the nuclear fission chain reactions that lead to nuclear explosions and are therefore not an infringement of the CTBT, earning the criticism of the atomic-bombbed cities as well as the international community.

**Q5** North Korea's nuclear weapons: How advanced are they?

The nuclear force of the Democratic People's Republic of Korea (North Korea) is continuing a trend of expansion. The details of the nation's nuclear plans are unclear but they continue to produce the nuclear material required as the ingredients of nuclear weapons, and they have repeatedly tested a variety of missiles that could be mounted with nuclear weapons. Diplomatic efforts are underway with the first ever US-North Korea summit held in 2018, but the realization of the promised complete denuclearization of the Korean Peninsula is stagnating.

**Q6** Does Iran possess nuclear weapons?

Iran does not possess any nuclear weapons. However, since it had been furiously proceeding with uranium enrichment activities that could lead to the acquisition of nuclear weapons the intentions of the nation's nuclear development have been under suspicion. In an attempt to arrive at a diplomatic solution the Joint Comprehensive Plan of Action was concluded in 2015 between Iran and the six major nations. In return for complying with restrictions, inspections and monitoring of its nuclear development capability, there was to be a comprehensive lifting of economic sanctions on Iran. However, the United States unilaterally withdrew from the agreement in 2018 and restarted its sanctions on Iran, which in turn relaunched its enrichment program, and US-Iran relations have deteriorated.

**Q7** Will the Treaty on the Prohibition of Nuclear Weapons lead to the nuclear weapons abolition?

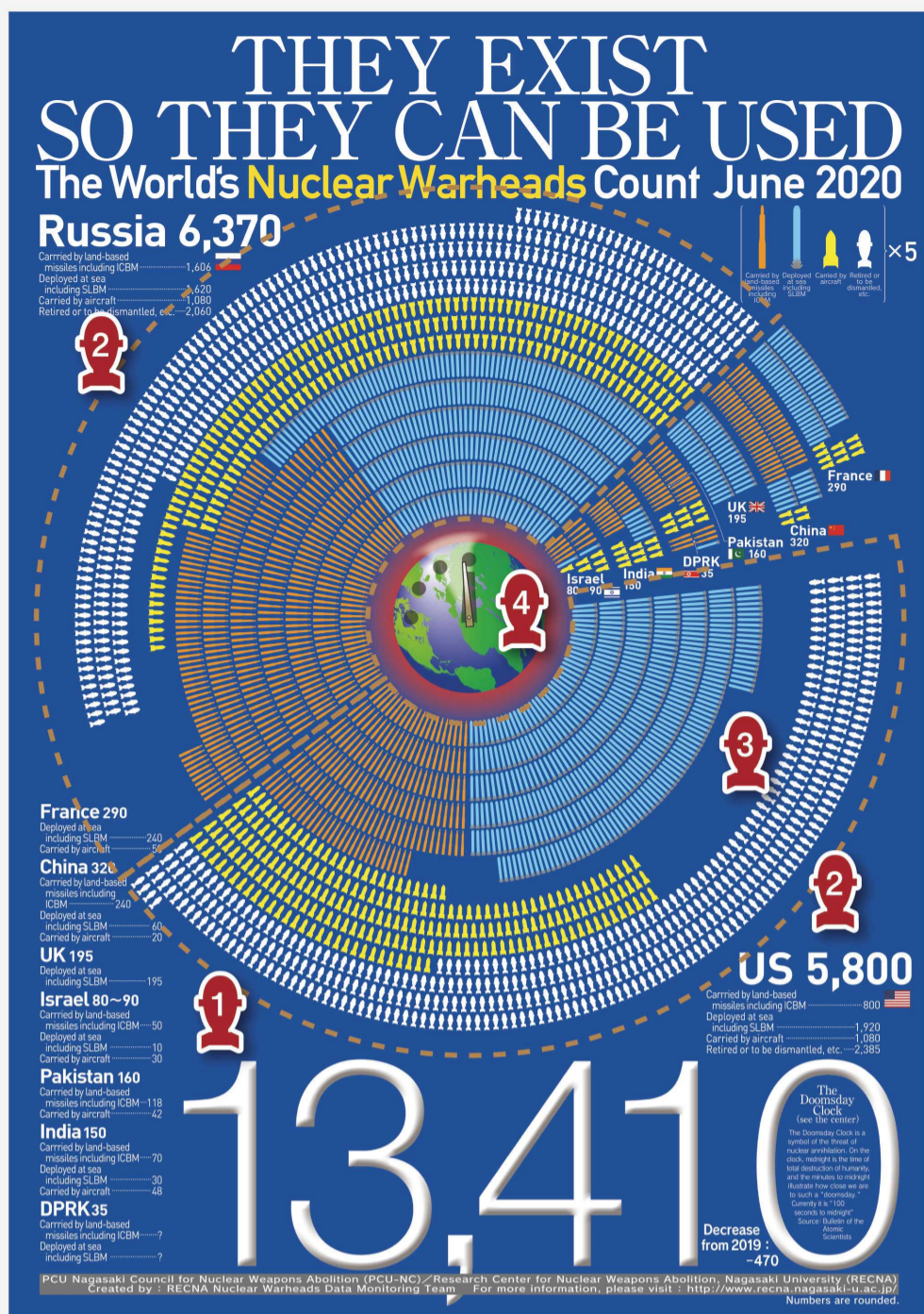
The Treaty on the Prohibition of Nuclear Weapons (TPNW) adopted in 2017 is the treaty which prohibits state parties from developing, testing, possessing, using, or threatening to use nuclear weapons. Of course, the establishment of the TPNW does not automatically mean that we will immediately achieve the goal of abolishing nuclear weapons. Countries with nuclear weapons and those under the "nuclear umbrella" are unlikely to join it, at least for the time being. However, the adoption of the TPNW, which clearly brands nuclear weapons as illegal, inhumane weapons will help to stigmatize such weapons. Nuclear weapons are now immoral and illegitimate. It is expected that this fact could exert further pressure on those countries relying on nuclear deterrence to review their policies, by influencing public opinion.

**Q8** What does the abandonment of nuclear weapons involve?

First of all the components of nuclear weapons are dismantled but the problem is the nuclear material, which cannot be easily disposed of. Subsequently, nuclear material has to be managed and processed in a way that will make it impossible to ever use again for weapons. Unfortunately the amount of nuclear material in the world is continuing to increase.

**Q9** What can Japan do?

In order to achieve a world free from nuclear weapons the cooperation not only of the nuclear powers but of all nations is essential. Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) obligates all nations to strive towards the realization of nuclear disarmament. It is particularly vital that nations such as Japan that are dependent on the nuclear umbrella change their policies and aim for a security that does not rely on nuclear weapons. One aspect of striving for this is to move towards the creation of a Northeast Asia Nuclear Weapon-Free Zone.



## 1 The Total Number of Nuclear Warheads in the World: Approx. 13,410

As of June 2020, the total number of nuclear warheads in the world is approximately 13,410. Information about nuclear weapons is generally kept as a state secret, so countries do not usually publish detailed data about them. As such, researchers and experts all of the world who are tackling this issue must estimate the number, types, and operational status of the nuclear weapons possessed by each country. This poster was created following careful examination of information from various sources.

What is your impression of the number of nuclear warheads of "13,410"? At the peak of the Cold War in 1987, the world had nearly 70,000 nuclear warheads. The number of nuclear warheads has been significantly reduced, but since the 2000s the speed with which reductions are being made has been far from rapid.

As of last year (June 2019), the total number of nuclear warheads was 13,880; in other words, the world managed to dismantle 470 nuclear warheads over the previous year. However, this is not a simple situation. The United States and Russia, despite reducing the total number of nuclear warheads they possess, are spending vast sums of money on the modernization of their nuclear weapons. Moreover, they are pushing ahead with the development and deployment of new-type of nuclear warheads and missiles not previously in their modernization plans. China is the only party to the NPT whose number of nuclear warheads is actually increasing. India and Pakistan are pursuing the expansion of their nuclear armaments, and it is thought that the danger of their use is high because of the unstable political circumstances surrounding them. North Korea too remains in a state in which no signs of a resolution are apparent.

## 2 The United States and Russia Own over 90% of the World's Nuclear Warheads

The nine countries that possess nuclear warheads are the United States, Russia, France, the United Kingdom, China, Pakistan, India, Israel, and North Korea. Five of these countries (the United States, Russia, France, the United Kingdom, and China) are defined by the Nuclear Non-Proliferation Treaty (NPT) as Nuclear Weapon States, as they had been conducting nuclear testing at the time of NPT negotiations. India, Pakistan, and Israel possess nuclear weapons outside of the NPT framework. North Korea declared its withdrawal from the NPT in 2003.

The numbers of nuclear weapons possessed by the United States and Russia are almost equal, and between them amounts to around 91% of the world's stockpile. A number of nuclear weapons possessed by the two nations remain in a state of "high alert" in which they can still be fired at any time within a matter of minutes, and the danger of them being fired due to some accidental events has been pointed out.

The United States and Russia committed to reduce **the number of deployed strategic nuclear warheads** held by each country to 1,550 or less under the New START Treaty, which entered into force in February 2011. The reduction levels envisaged by the treaty were achieved by both countries before the deadline in February 2018. However, this falls far short of a substantial reduction in their nuclear arsenals, since the United States only reduced its arsenal by a couple of hundred rounds, while Russia had already achieved the goals under the treaty when it entered into force.

The Trump administration has publicly expressed the need to strengthen the United States' nuclear deterrence to confront perceived threats posed by China and Russia, and in tandem with modernizing its nuclear weapons it is making an effort to develop and deploy more usable, new nuclear weapons. Coinciding with this, the Trump administration has withdrawn from a series of vital agreements on arms control including the Iran nuclear deal and the Intermediate-Range Nuclear Forces Treaty (INF). In response to these moves Russia is approaching the bolstering of its nuclear forces, and the backlash from China is becoming fiercer. The status of US-Russian talks ahead of the extension of the new START Treaty or a successor treaty are unclear. The bilateral and multilateral arms control regimes are facing a considerable crisis.

## 3 Nuclear Bombs in Germany and Italy

The United States deploys about 150 non-strategic nuclear warheads in five NATO countries (Belgium, Germany, Italy, the Netherlands, and Turkey). This deployment is a relic of the Cold War. Calls for removing these weapons have been growing within Europe, but they have yet to be realized.

## 4 "100 Seconds" Left to Nuclear Annihilation?

Drawn on the image of the Earth in the center is the "Doomsday Clock." Continuously published since its first publication in the Bulletin of the Atomic Scientists in 1947, this countdown to midnight represents the countdown to annihilation of humankind by nuclear weapon use, symbolizing how close we are to a global crisis.

As of January 2020, the Doomsday Clock was at 100 seconds before midnight. The closest the world has ever been before to doomsday was in 1953, when the countdown was two minutes to midnight, due to the success of hydrogen bomb tests by the Soviet Union. Against the background of the increasing risks of nuclear weapon use and modernization of the nuclear arsenals of nuclear states, experts warn that the human civilization is facing a grave crisis.

## Types of Delivery Vehicles and Nuclear Warheads

The types of delivery vehicles for nuclear warheads are divided into the following three categories. Each icon represents five nuclear warheads.

- 1 Nuclear warheads deployed at sea; e.g., Submarine-Launched Ballistic Missiles (SLBMs)**
  - 2 Nuclear warheads deployed on land; e.g., Intercontinental Ballistic Missiles (ICBMs)**
  - 3 Nuclear warheads carried by aircraft; e.g., bombers**
- All three of these categories contain nuclear warheads that are either "operationally deployed strategic nuclear warheads", "operationally deployed non-strategic nuclear warheads", or "reserve/non-deployed nuclear warheads".

In addition the above, we have established a category for "retired and to-be-dismantled" warheads. Although these nuclear warheads have been retired from military stockpiles and stored for dismantlement, this does not necessarily eliminate the possibility of their reuse.

### 1 "Submarine-Launched Ballistic Missiles (SLBM)"

Ballistic missiles capable of being launched from submarines.

### 2 "Intercontinental Ballistic Missiles (ICBM)"

Land-based ballistic missiles with a range of 5,500 km or more.

### 3 "Reserve/non-deployed nuclear warheads"

Reserved warheads which are not operationally deployed, but are stored for possible future use.

### 4 "Operationally Deployed Nuclear Warheads"

Nuclear warheads which are deployed at a military unit and are capable of use.

### 5 "Strategic Nuclear Weapons"

Nuclear warheads to be mounted on nuclear weapons for the purpose of attacking enemy cities and major military installations. Non-strategic nuclear weapons, by contrast, have a more limited usage in battlefield situations. Non-strategic nuclear weapons include "tactical nuclear weapons" and "theater nuclear weapons."