

IT IS 90 SECONDS TILL MIDNIGHT

By Ivana Nikolić Hughes | January 25, 2023

Yesterday, the Bulletin of Atomic Scientists, a pre-eminent organization founded in 1945 with the goal to publish and pronounce upon the dangers of the nuclear arms race, and more recently other existential threats, such as climate change, announced their latest Doomsday Clock reading. The clock's history dates back to 1947, when the Bulletin asked the artist Martyl Langsdorf to create a cover for the magazine; Langsdorf proceeded to draw a picture of a clock, with its hands at seven minutes till midnight. Her choice of image was meant to reflect the urgency of the moment and the fact that very little time was left to prevent a human-made global catastrophe before it happened. By 1949, the Bulletin started using the image yearly to ascertain the current state of global affairs and to indicate whether things have indeed gotten better or worse compared to the previous year and compared to all of the prior clock readings. Along the way, the Doomsday Clock became a symbol of all that is wrong in today's world and a widely anticipated gauge of global risks and threats.

Since 1949, the minute hand of the clock has been changed 24 times, reaching 17 minutes to midnight or the farthest from midnight in 1991, at the end of the Cold War. Prior to 2020, the closest setting was two minutes till midnight during the time period of 1953 to 1959, when both the United States and the Soviet Union not only acquired but widely tested hydrogen bombs. Hydrogen bombs, by using fusion, the process that powers the Sun and the stars, instead of just fission, increased the energy yield and destructiveness of nuclear weapons by orders of magnitude. The United States tested – in the Marshall Islands and Kiribati – bombs that were up to 1000 times more powerful than the Hiroshima bomb, while the Soviets tested hydrogen bombs that reached up to 50 Mtons or the equivalent of more than 3300 Hiroshima bombs. Most of those ultra high yield tests were conducted near Severny Island in the Arctic, with some taking place at the Semipalatinsk test site in Kazakhstan.

In January 2020, just as the COVID pandemic was gaining speed, the Bulletin's Science and Security Board set the clock at 100 seconds to midnight, the closest it had ever been, to reflect the deteriorating global security environment, as well as the accelerating impacts of global warming and the lack of meaningful progress on addressing climate change. The clock reading was unchanged in 2021 and 2022 and when the Ukraine War started last February, many began to wonder how the new and increased risk of nuclear exchange or worse would affect future clock readings. So like thousands of others, I was glued to my screen yesterday morning, anticipating with some trepidation what time the Bulletin experts would set for this year. The clock hands – clearly – do not impact the situation on the ground in Ukraine or globally, but I did have the sense that the reading would reflect the urgency of the moment, as it has for decades. Confronting this urgency in such a direct way did make me anxious.

When Mary Robinson, former President of Ireland, and others unveiled the clock to reveal 90 seconds till midnight, I breathed a sigh of relief. Yes, 90 seconds to midnight is awfully close and the closest the clock has ever been. I fully agree with this assessment, as the Ukraine War has undoubtedly increased the risk of use of nuclear weapons, which was already unacceptably high, while also causing other global problems and

exposing our global interdependency. So I agree that we are worse off today than we have ever been. For those who discount the dangers, I would quote Prof. Marty Hellman from Stanford University, who says that “those who discount the risk of nuclear war stemming from the war in Ukraine are probably right, but probably is not good enough when our nation’s survival is at stake.” To this, I would add that nuclear war does not threaten just our nation and other individual countries, but human civilization as we know it and possibly the human species and other life on the planet. Assessing the risk as the highest it has ever been, seems right on the mark to me.

My relief at hearing and seeing 90 seconds till midnight was due to the fact that I could have imagined an even closer reading of say, one minute till midnight. I believe that 90 seconds is a better assessment as it reflects the numerous opportunities to make things better. Coming out of a worldwide pandemic, we should be better prepared to confront future pandemics individually and within our communities and societies. Global warming is having such visible impacts around the planet (I write this from New York City where we have yet to have our first snowfall of the 2022/2023 winter season) that denial is no longer even a viable strategy and optimism about the shift to renewables in places like China and India does not strike me as premature. Finally, the Ukraine War has at last woken many people up to the continued dangers of nuclear weapons, dangers they seemed to have put aside after the fall of the Berlin Wall. Those dangers in fact never went away and the hope is that by allowing the whole world to see them for what they are, we can finally reach the decades-long aspirations of nuclear abolition.

This brings me to my favorite point about why there is reason for hope. The Treaty on the Prohibition of Nuclear Weapons (TPNW) has now been in force for two years (we just celebrated its second anniversary on January 22), has 68 ratifications and 92 signatory states, and both lists of states continue to grow. I was fortunate to attend and participate in the First Meeting of States Parties last June in Vienna where I could soak in the optimism and the excitement of diplomats, civil society, academics, and youth, all working together to bring the promises of this historic treaty to reality. We at the Nuclear Age Peace Foundation are hard at work on promoting, strengthening, and implementing the TPNW and are convinced that the treaty is our best hope for leaving a world free of nuclear weapons to our children. We must do everything we can to see it accomplish all of its objectives. After all, we only have 90 seconds to do so.

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