

Pugwash Conferences on Science and World Affairs

1995 Nobel Peace Prize

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65 years after the Russell-Einstein Manifesto: where are we now?

On July 9, 1955, two of the most eminent intellectuals of the 20th century, Bertrand Russell and Albert Einstein, issued an appeal to humanity, urging that the immense peril associated with nuclear weapons be recognized by governments and publics alike. The Russell-Einstein Manifesto warned that nuclear weapons pose a threat to the survival of the human species and called for major efforts to address and contain nuclear dangers. One of the consequences of the Manifesto was the holding of the first Pugwash conference in 1957. The origins and goals of Pugwash are contained in the Russell-Einstein Manifesto: to highlight the dangers of nuclear weapons, to call for the elimination of nuclear weapons, and to promote peaceful resolution of conflicts.

Today, July 9, 2020, is the 65th anniversary of the Russell-Einstein Manifesto. We ask, how is the situation now, 65 years later?

On the positive side, the worst fears of Russell and Einstein have not come to pass. Nuclear weapons have never been used in war after Hiroshima and Nagasaki. The human species has been spared the catastrophe of large-scale nuclear devastation. Importantly, the two main nuclear-armed states, the US and Russia, have avoided war despite the often-intense antagonism between them. These are more optimistic outcomes than anticipated in the ominous worries of Russell and Einstein.

The decades since the Russell-Einstein Manifesto have witnessed a number of other positive developments. The trend toward ever-vaster accumulations of nuclear weapons has been reversed. While the total number of operational nuclear weapons increased dramatically after 1955, it decreased quite sensibly in more recent times. Nuclear testing was first constrained and then has been almost completely eliminated. Atmospheric testing was banned in 1963 and nuclear tests in general did not happen after 1998, with only the exception of North Korea.

The Nuclear Nonproliferation Treaty (NPT), though imperfect on many grounds, has contributed to significantly limiting the number of States possessing nuclear weapons. These regimes are buttressed by international institutions like the IAEA and the CTBTO whose purpose is to avoid the further spread of nuclear weapons and to avoid any future nuclear tests. Thanks to the IAEA in particular, the possible shift from a legitimate civilian nuclear program to a military nuclear program is made difficult and/or is kept under control. There is a wide awareness about the issue of nuclear security, namely about the crucial importance of keeping existing nuclear weapons and weapons-usable nuclear materials in safe and secure conditions, away from the malign hands of terrorists or rogue states. International public opinion is in general aware of the dramatic global consequences of the use of nuclear weapons (e.g. the nuclear winter).

In the realm of bilateral arms control between Washington and Moscow, who possess the overwhelming majority of the world's nuclear weapons, considerable progress was made – well beyond anything in view in 1955. Moreover, it was possible to reach agreements even when relations

between the two were tense and adversarial. Significantly the arms control process moved forward, for example, at a time when US and USSR were on opposite fronts in the Vietnam war: the SALT I and ABM treaties were negotiated in this period. Similarly, despite the Soviet invasion of Afghanistan, the US and USSR signed the INF treaty. In 1991, the presidential initiatives were responsible for the removal of about 17,000 tactical nuclear weapons.

Though heartening progress has been made and the worst nuclear dangers have been averted, many problems and challenges remain. Despite the decrease of the number of nuclear weapons worldwide, still the number of the operational nuclear weapons worldwide is absolutely too high. Nuclear disarmament has a long way to go and the disarmament commitment contained in Article VI of the NPT, that has no time obligations for the nuclear weapon states, is de facto not implemented. In particular, US and Russia possess together the absurd number of about 11,000 operational nuclear weapons. Moreover, new technologies are considered for nuclear delivery systems, such as hypersonic missiles or tsunami-generating torpedoes. Speaking about the NPT, it is worthwhile remembering that the Review Conferences are important occasions for collective thinking about nuclear disarmament. We are looking forward in particular to the forthcoming conference in 2021.

In general, the arms control process is now under stress and arms control has in fact been in retreat in recent years. The US withdrew from the ABM treaty in 2002 and, as a retaliation, Russia abandoned the START II agreement. Furthermore, in 2019 the US administration formally withdrew from the INF treaty. The only existing arms control treaty between the US and Russia is now the New START Treaty which expires in February 2021. As for now, the present US Administration does not seem interested in extending New START, but maybe the new US administration in 2021 will take a different attitude. In fact, the US-Russia arms control process should, hopefully, go well beyond the New START treaty. Also, there has been some loose talk by the present US administration about restarting nuclear testing. The CTBT is not yet in force, due to the non-ratification of US, China, Israel, Egypt, and Iran, and the lack of signatures by India, Pakistan and North Korea. Avoiding nuclear tests is a very important goal to keep in mind and so is the entry into force of the CTBT.

In the years after the entry into force of the NPT, four states, not members of the NPT, acquired nuclear weapons, namely India, Israel, Pakistan and North Korea. These states are located in regions where conflicts and severe antagonistic attitudes are present. In particular in the case of South Asia, India and Pakistan are neighboring states, both possessing nuclear weapons, with a long history of conflicts and tensions that, at the moment, are on the rising path. The antagonism between India and China is increasing as well, as evidenced by the recent border clash.

Hence, we see new dangers of conflict between states possessing nuclear weapons. And the fact that these regional nuclear powers have much smaller nuclear arsenals than the United States and Russia is not necessarily a source of relief. A relatively “small” nuclear conflict with the use of a couple of hundreds of nuclear weapons will create an incredible loss of human lives, will have dramatic global economic consequences with an incredible number of refugees, and will also have catastrophic global environmental effects.

The efforts that the international community made in order to avoid the creation of new "nuclear states" had a very significant result in the 2015 agreement about the nuclear issues in Iran (JCPOA). Unfortunately, the US withdrew from the JCPOA and is punishing institutions and companies that do not respect the US sanctions against Iran. In this way, we are creating new dangers for the possible nuclear proliferation in the Middle East. Speaking about North East Asia, the attempts to make North East Asia a nuclear weapon free zone, did not have, for the time being, any success. Last but not least, speaking about nuclear disarmament, it is worth mentioning the Nuclear Ban Treaty, which is

injecting into international public opinion the need to promote the goal of universal nuclear disarmament.

Another key issue in the Russell-Einstein Manifesto is the need for conflict resolution, as conflicts are ultimately related to nuclear dangers. We have regions in the world where conflicts have steadily grown: the Middle East, South Asia (including Afghanistan), and North East Asia. Moreover, as stated in our recent Pugwash document, the Covid-19 pandemic has increased antagonisms and hostilities. A remarkable case is the US-China antagonism. In general, the managing of the health crisis, the development of a global dramatic economic crisis, the strong limitation of the free circulation of people worldwide, have created a "perfect storm" in the international arena.

Will mankind be able to contain these antagonisms, and hopefully avoid conflicts and especially nuclear conflicts? These are the questions that, in the memory of the Russell-Einstein Manifesto, we should ask ourselves. And these are the goals of organizations like Pugwash, whose "raison d'être" lies in the message given by the Russell-Einstein Manifesto: "Remember your humanity and forget the rest!"

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