On August 6, 1945, the United States unleashed the nuclear age, dropping a single atomic bomb on Hiroshima, which indiscriminately incinerated tens of thousands of children, women, and men in an instant. It was a tiny and crude nuclear weapon by today’s standards, justified by a lie of historic proportions – that the bombing ended World War II and saved American lives. Over 90% of the doctors and nurses in Hiroshima were killed or injured by the bomb.

Three days later, the U.S. dropped a second atomic bomb on Nagasaki. By the end of 1945 more than 210,000 people – mainly civilians, were dead, and the surviving A-bomb victims ("hibakusha"), their children and grandchildren continue to suffer from physical and psychological effects of the bombings.

In 1995, then-Hiroshima Mayor, Takashi Hiraoka, testified before the International Court of Justice:

“[T]he bomb reduced Hiroshima to an inhuman state utterly beyond human ability to express or imagine... History is written by the victors”, he concluded. “Thus, the heinous massacre that was Hiroshima has been handed down to us as a perfectly justified act of war... It is clear that the use of nuclear weapons, which cause indiscriminate mass murder that leaves survivors for decades, is a violation of international law”.

On July 7, 2017, I was at the United Nations in New York to witness the adoption of the Treaty on the Prohibition of Nuclear Weapons (TPNW) by the majority of the world’s countries. Watching countries vote, by 122-1, to prohibit the possession, development, testing, use and threat of use of nuclear weapons was a thrilling moment, but it was also bittersweet.

After meeting the threshold of 50 ratifications, the TPNW entered-into-force on January 22 of this year, becoming binding law on those countries that have ratified it. There are currently 86 signatories and 54 states parties.

But the TPNW is not a panacea and we need to take a hard look at nuclear realities as we plan our strategies going forward. We stand at a nuclear crossroads, in a starkly divided world. While the TPNW represents the total repudiation of nuclear weapons by most of the states that don’t possess them, the U.S. and the eight other nuclear-armed states boycotted the negotiations, along with Japan, Australia, South Korea, and all but one of the 28 NATO member states – all countries under the U.S. nuclear umbrella. In a joint statement following the vote, the U.S., France, and the United Kingdom declared: “We do not intend to sign, ratify or ever become party to [the Treaty].” (Note: the majority of the world’s population lives in nuclear-armed countries or countries under the U.S. nuclear umbrella; these are also the world’s largest economies.)

It’s important to understand that U.S. national security policy has been remarkably consistent in the post-World War II and post-Cold War eras – despite dramatically changed geopolitical
conditions and very different Presidential styles. “Deterrence,” the threatened use of nuclear weapons, has been reaffirmed as the “cornerstone” of U.S. national security by every President, Republican or Democrat, including Obama – since 1945, when President Harry Truman, a Democrat, oversaw the atomic bombings of Hiroshima and Nagasaki.

In October 2016, President Obama’s UN Ambassador, Robert Wood, condemned the TPNW in the General Assembly: “Advocates of a ban treaty say it is open to all, but how can a state that relies on nuclear weapons for its security possibly join a negotiation meant to stigmatize and eliminate them”.

Today, an estimated 13,125 nuclear weapons, most an order of magnitude more powerful than the U.S. atomic bombs that destroyed Hiroshima and Nagasaki—91% of them held by the United States (5,550) and Russia (6,370), continue to pose an intolerable threat to humanity, and the dangers of wars among nuclear-armed states are growing. (The other nuclear-armed states are France [300], China [290], United Kingdom [215], Pakistan [150], India [150], Israel [80] and North Korea [20] Iran does not have nuclear weapons.)

The detonation of even a small number of these weapons could have catastrophic human and environmental consequences that could affect everyone on the planet.

Over the next 30 years, the United States plans to spend roughly $2 Trillion to replace its entire nuclear weapons infrastructure and upgrade or replace its nuclear bombs and warheads and the bombers, missiles and submarines that deliver them. All nine nuclear-armed nations are upgrading their nuclear arsenals.

Dangerous and destabilizing U.S. plans include:

A new air-launched cruise missile with long-range standoff capability, that will be stealthier, more accurate, longer range, and deployed in the hundreds on a new stealth bomber, the B-2.

A new land-based Intercontinental Ballistic Missile (ICBM), called the “Ground-Based Strategic Deterrent”, with an enhanced W-81-7 warhead, to replace the 400 Minuteman III missiles currently deployed on the Great Plains.

Twelve new replacement Trident ballistic missile submarines. Trident Submarine-Launched Ballistic Missiles (SLBMs) are undergoing “life-extensions” and the mated W76-1 warhead has been made much more accurate. An entirely new warhead, the W-93, is planned for deployment by 2040.

With up to 20,000 existing plutonium pits – the “triggers” of nuclear weapons – in storage at the Pantex Plant in Texas, the U.S. is planning to upgrade plutonium pit manufacturing capacity at the Los Alamos National Lab in New Mexico to 30 or more pits per year, and at the Savannah River Site in Georgia to 50 or more pits per year by 2030.

The U.S. also plans to build a new Uranium Processing Facility at the Y-12 Plant in Oak Ridge Tennessee, and to continue to use two older, high risk facilities there for 30 more years. These facilities will be used to manufacture highly enriched uranium components, called “secondaries”,...
which put the “H” in H-bomb, for refurbished and new-design nuclear weapons, at a rate of 80 units per year.ii

Russian President Vladimir Putin, in a 2018 speech, boasted about new “invincible” Russian nuclear weapons, and gave a detailed description, complete with video animations, of an array of new nuclear weapons delivery systems, including a nuclear-powered cruise missile and an underwater drone.

In September 2020, the Pentagon claimed that China plans to double its stockpile of nuclear warheads (from 290) in this decade, including those designed to be carried by ballistic missiles that can reach the U.S.iii

This February, France announced plans to launch the full-scale development phase of a new program to build France’s third-generation nuclear-powered ballistic-missile submarines. The French Minister for the Armed Forces, Florence Parly described the new nuclear submarine as “a program that fully embodies the ‘long time’ of our defense: the first third-generation SSBN (ballistic missile submarine) will be delivered in 2035, followed by one submarine every 5 years. And these will sail until 2090. In other words, the last sailors who will patrol on board the third generation SSBNs (ballistic missile submarines) are not born yet.”iv Chilling.

On March 16, Prime Minister Boris Johnson released an integrated defense review that calls for increasing the UK’s nuclear stockpile ceiling from the earlier goal of 180 by the mid-2020s to as many as 260—a 44 percent increase. The defense review vaguely justifies the increase in the nuclear warheads cap “in recognition of the evolving security environment” and in response to a “developing range of technological and doctrinal threats”.

These disquieting developments are contrary to the 1970 Nuclear Nonproliferation Treaty (NPT), the only binding commitment in a multilateral treaty to the goal of disarmament by the five-original nuclear-armed States. Article VI spells out the disarmament obligation: “Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament….”

The NPT’s disarmament obligations, enshrined in the Preamble and Article VI, have been reiterated and reinforced by agreements made in connection with the 1995 Extension Decision, the 2000 and 2010 Review Conferences, and the International Court of Justice’s 1996 Advisory Opinion, which provided the authoritative interpretation of Article VI. The Court found unanimously, “There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.”

However, the failure of the nuclear-armed states to make good on their disarmament obligations, and to the contrary, in the face of new arms racing, the long-term viability of the NPT is being questioned. The 5-year NPT Review Conference that had been scheduled for May 2020 – the 50th anniversary of the treaty - was postponed due to the pandemic and has been rescheduled for August 2021. It will come at a critical time in the international nuclear discourse.
According to United Nations High Representative for Disarmament Affairs Izumi Nakamitsu: “The specter of unconstrained nuclear competition looms over us for the first time since the 1970s. We are witnessing what has been termed a qualitative nuclear arms race, one not based on numbers but on faster, stealthier and more accurate weapons. Regional conflicts with a nuclear dimension are worsening, and proliferation challenges are not receding.”

With rising geopolitical tensions, an alarming but often overlooked trend is the increased scale and tempo of war games by nuclear-armed States and their allies, including nuclear drills. Ongoing missile tests, and frequent close encounters between military forces of nuclear-armed states including the U.S. and Russia, the U.S. and China, and India and Pakistan, exacerbate nuclear dangers.

Given the global stakes, it’s hard to understand how the subject of nuclear weapons was entirely absent from the 2020 Presidential campaign. So, what can we expect from the Biden administration?

Joe Biden has been involved in arms control negotiations since 1979. Shortly before leaving office in 2017, Vice-President Biden said: “It is precisely because we do not trust our adversaries that treaties to constrain the human capacity for destruction are indispensable to the security of the United States of America. Arms control is integral to our national defense and—when it comes to nuclear weapons—to our self-preservation.”

But he added the familiar refrain: “A nuclear deterrent has been the bedrock of our national defense since World War II. And so long as other countries possess nuclear weapons that could be used against us, we too must maintain a safe, secure, and effective nuclear arsenal to deter attacks against ourselves and our allies. That is why, early in the [Obama] administration, we increased funding to maintain our arsenal and modernize our nuclear infrastructure—so that our arsenal remains safe and reliable—even with fewer weapons, and even without tests.”

When pondering why nuclear weapons persist, consider this. On February 1 of this year, warning that the danger of nuclear war with Russia or China is “a very real possibility”, Admiral Charles Richard, Chief of U.S. Strategic Command, described the relationship between nuclear and conventional weapons in current U.S. warfighting plans: “We must acknowledge the foundational nature of our nation’s strategic nuclear forces, as they create the ‘maneuver space’ for us to project conventional military power strategically.”

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i World Nuclear Weapon Stockpile | Ploughshares Fund
ii WeaponsPolicy2019.pdf (ananuclear.org)
iii Pentagon says China planning big increase in nuclear arsenal (apnews.com)
iv France Launches Third Generation SSBN Program - SNLE 3G - Naval News