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Nuclear Weapons and a Different World

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The nuclear age began in August 1945 and from the earliest of days proliferation of nuclear weapons was recognized as a major problem. There were considerable differences of view in 1945 in the US government about using the bomb against Japan, with Secretary of War Stimson ruling Kyoto off the atomic bomb target list and General Eisenhower opposing its use. However, President Truman and General George Marshall in the end supported the use of the weapon against Hiroshima and Nagasaki and that was decisive.

With respect to proliferation there was no such dissent, it being widely recognized as a serious threat. However, with the advent of the virtually unlimited U.S.–Soviet nuclear arms race following Soviet acquisition of nuclear weapons and the introduction of thermonuclear weapon technology, this concern to a degree fell by the wayside. Other nations began to acquire or at least contemplate nuclear weapons. First the United Kingdom and then France joined the ranks of nuclear weapon states; China and Israel had active nuclear weapon development programs. Sweden was considering a program and Switzerland had voted by national referendum to keep open the nuclear weapon option. President John F. Kennedy said in March of 1963 in a press conference that his greatest fear was that by 1970 there would be 10 nuclear weapon states instead of four, and by 1975, 15 or 20; this the President would regard as “the greatest possible danger and hazard.”

This situation changed in the 1960s, first with the 1961 “Irish Resolution” in the United Nations General Assembly which called for a world non-proliferation treaty and passed the UNGA unanimously. Next came the Sweden/India Resolution in the UNGA in 1965 which set the parameters of the NPT and notably included a clause which called for a balance of obligations between nuclear weapon states and non-nuclear weapon states. In the end, the NPT was largely based on this latter Resolution.

The formal NPT negotiations took place at the Eighteen Nation Disarmament Commission in Geneva, Switzerland in 1967 and 1968. The U.S. and Soviet Co-Chairmen in 1967 introduced and pressed for a simple treaty prohibiting the further proliferation of nuclear weapons. But the other negotiating nations resisted, insisting on, and by signature of the NPT in 1968 achieving, compensatory obligations from the nuclear weapon states (by NPT definition the United States, the Soviet Union/Russia, the United Kingdom, France, and China) in exchange for most of the world obligating itself not to acquire nuclear weapons, as envisioned in the Sweden/India Resolution. These were a commitment to end the nuclear arms race and engage in disarmament negotiations, looking toward the ultimate abolition of their nuclear stockpiles (Article VI of the NPT) and a preservation of the right of all parties in good standing to the peaceful use of nuclear energy with an obligation to cooperate for all parties toward that end (Article IV). The non-nuclear states in the negotiations also wanted in the Treaty a commitment to interim steps within the NPT prior to the world-wide elimination of nuclear weapons. This the Co-Chairmen did not agree to, saying that these could be worked out in the five-year review conferences provided for in the NPT, however with one exception. A preambular clause was included in the NPT (preambular clause number 10) calling for the negotiation of a comprehensive test ban treaty—the most important of the interim steps. Indeed the Test Ban was

seen as the essential quid pro quo by the non-nuclear weapon states for giving up the most destructive weapons ever created. If in the depths of the Cold War significant progress in nuclear disarmament was impractical, the view was that at least the nuclear weapons states would stop testing their weapons.

There was one other NPT provision that should be noted. All multilateral arms control/non-proliferation treaties have been given when negotiated a permanent duration, such as the Outer Space Treaty and the Chemical Weapons Convention. Only the NPT was an exception to this. Three of the negotiating states in Geneva: Sweden, Germany, and Italy, were skeptical that the NPT would succeed. Therefore they argued for something less, and in the end the negotiators agreed to give the NPT a 25-year life, after which the parties to the Treaty would meet in a conference and on a one-time basis—without having to seek approval of national legislators as with an amendment—decide by majority vote how much longer the NPT would last.

For the first 25 years of the life of the NPT after its entry into force in 1970 in the Review Conferences and elsewhere, the non-proliferation part of the Treaty was a success. The Article IV peaceful nuclear technology obligation worked well amid some contention. But the Article VI disarmament commitments, particularly the so-called interim steps, were largely a failure, with the Test Ban, to the chagrin of many non-nuclear weapon states parties, being the principal casualty. In 1995 the Treaty-mandated Review and Extension Conference took place and it was agreed by a consensus decision to make the NPT permanent but this time explicitly conditioned on progress on the interim steps toward disarmament, with the Test Ban in one year being objective number one.

Galvanized by this outcome the United States led the comprehensive test ban treaty negotiations to a successful outcome in 1996 and the Test Ban or CTBT was adopted by the UN General Assembly by a vote of 158 to 3. Many states promptly signed the Test Ban Treaty in New York in September 1996 with the United States being the first to sign. However, because of the politics among India, China, the United Kingdom, and others, the entry into force clause was different. Usually a treaty enters into force—becomes effective—after a certain number of signers have ratified it under their domestic law; for the U.S. of course that means approval by the Senate and signature by the President. The Test Ban by its terms will enter into force only when all 46 states with nuclear facilities on their territory in 1996 have ratified.

The United States Senate rejected ratification in 1999 and while the Test Ban Treaty remains in the hands of the Senate there has been no attempt since to seek another vote on the Treaty. Thirty-eight of the 46 states have ratified, including the United Kingdom, France, Russia, Japan, and Germany. The other seven of the remaining eight are largely directly or indirectly waiting for the United States to act. But favorable action on the Test Ban by the U.S. Senate as far as one can see into the future at the present time does not appear possible. Thus the principal quid pro quo for most of the states of the world legally obligating themselves to never acquire nuclear weapons, the one thing that in the eyes of much of the world takes some of the edge off of the perceived first class status of the nuclear weapon states, the one step that would be seen by non-nuclear weapon states as establishing balance in the NPT may never be achieved. The world largely has been following an informal nuclear weapon test moratorium policy since it was established by the United States in 1993, all states except North Korea since 1998. Nevertheless the failure to achieve entry into force of the CTBT is a crippling blow to the long-term viability of the NPT.

Another issue that should be considered here is nuclear weapons in the Middle East. In 1995 in order to bring Egypt and other Arab states, upset over the Israeli nuclear weapon arsenal, on board the consensus extension decision—after a long pursuit of other measures—a Resolution was included in the package of resolutions extending the NPT indefinitely that called for the negotiation of a weapons of mass destruction free zone in the Middle East. In 2010 at the NPT Review Conference after 15 years of nothing happening on this issue, Egypt insisted that the Conference agree that a negotiating conference on this subject should be established. The NPT Review Conferences—as do other treaty review conferences—try to agree on Final Documents, consistent with international practice, by consensus of all the parties indicating continued support of the NPT regime. The U.S. negotiated with Egypt that the proposed Middle East Conference be a conference without negotiating authority, just a discussion. Egypt eventually agreed and the Final Document was adopted by consensus. But the conference never happened because Israel refused to attend on the ground that it could not attend such a conference until truly significant progress on comprehensive peace and security in the Middle East region could be achieved. In 2015 the tone was harsher at the NPT Review Conference and a number of states insisted on a clause in the draft Final Document, which called for a negotiating conference on a weapons of mass destruction free zone in the Middle East, with a fixed date to begin under the authority of the UN Secretary General. This was rejected by the United States, the United Kingdom and Canada and the Conference failed. This also is a major problem for long-term NPT survival.

The NPT now is weaker because of what one might broadly term these two structural reasons. But what about motivation to proliferate especially in the coming years—beyond the motivations that have existed for a long time, such as specific insecurity because of threats from neighboring countries and a desire for great power status?

For a long time scientists have been concerned about the impact of global warming, or as it is now called climate change, on the livability—at least for humans—of the planet. In the Paris Climate Agreement of a year ago some 190 nations pledged to reduce carbon emissions from power plants and other sources into the atmosphere in such a way so that the earth does not move more than two degrees Celsius beyond the average world temperature prior to the commencement of the Industrial Revolution around 1800. But the commitments in the Paris Agreement are largely voluntary. China which is taking a lead on climate change mitigation apparently is still building coal plants to add to the enormous number that they already have. The incoming U.S. administration has expressed skepticism over whether it should continue to engage in climate change mitigation or support the Paris Agreement. Very few countries have serious energy plans to reduce carbon emissions. The world average temperature is already at one degree Celsius above pre-industrial norms. There was a reading early in 2016 of plus 1.3 degrees Celsius. And there is a wide consensus among experts that a warming of the earth's average temperature to plus three degrees Celsius now appears to be built in. The World Bank has published two reports warning against a plus four degree Celsius world. At four degrees truly catastrophic things will happen. But in any case it appears that in coming years, developments possibly well underway by 2030: seas will rise; coastlines and interiors will gradually go underwater; deserts will greatly expand; oceans will become more acidic. There will be less oxygen as the plankton in the ocean—put at risk by an acidic ocean—provide 50 percent of the world's supply; the amount of arable land for crops and livestock will significantly shrink; and many potable water sources will disappear. There are a number of countries around the world which don't have large armies to defend their arable land and water resources under these scenarios. It would seem likely that some of these states or perhaps many may put the NPT aside

and seek a nuclear military equalizer to aggressive nearby states or to enable them to become aggressive as their populations need more and more food and water sources.

In such a world, with climate change effects growing more severe after 2030, given its structural weaknesses of the NPT and given the catastrophic situations and developments unfolding, the United States must have an effective nuclear weapon capability of reasonable and prudent size. We might one day need to defend what we have by whatever means we can.

What should we do now? First, do everything possible to achieve Senate approval and U.S. ratification of the Test Ban and then to vigorously pursue its entry into force before it is too late.

The United States has conducted more nuclear weapon tests than all other nations combined and has an unmatched nuclear weapon technology capability which would be locked in by entry into force of the Test Ban. The Comprehensive Test Ban Treaty Office in Vienna, Austria, through its International Monitoring System (IMS), can detect even small explosions anywhere in the world. Every one of the North Korean tests for example, were promptly detected by a considerable number of IMS stations, even some thousands of miles away.

Of the remaining seven states whose approval is essential to entry into force beyond U.S. ratification, China and Israel have been more or less explicitly waiting for the United States. Egypt is waiting for Israel. India in the late 1990s—let off the hook by the action by the Senate—privately promised signature and ratification of the Test Ban, Pakistan would have followed suit. Both nations since 1998 have been observing the moratorium. Iran could not refrain from becoming a Test Ban party when it was one of only two non-parties and maintain that it has a peaceful program. That leaves only the DPRK and surely the rest of the world under these circumstances would find a way to achieve Test Ban ratification by North Korea and its

return to the NPT. It would require a serious effort by China. Also a vigorous effort by the U.S. to at least establish discussions in the Middle East on possible weapons of mass destruction free zone one day would be important. Such discussions have occurred before, notably in the working group on Arms Control and Regional Security which met from 1992 to 1995, following the Madrid Conference on the Middle East. This process was effectively ended by Egypt in 1995.

And of course we must do our best to overcome the existential threat that climate change represents.

If the above two NPT objectives could be successfully pursued, the Treaty would be immeasurably strengthened. It then might be able to effectively stand against the threat of the further proliferation of nuclear weapons resulting from the on-coming effects of climate change. But even so with these very great future uncertainties it would seem that an arsenal of a manageable number of weapons, perhaps in the range of around 300 weapons particularly suited for deterrence of small arsenals developing around the world should be retained and improved and kept in the front rank of our defense. Such a level could be reached pursuant to a negotiation with Russia some years from now the negotiation result of which could also include the other three P-5 states at lower levels with account taken of the stockpiles of Israel, India and Pakistan at more modest levels. North Korea would have to return to the NPT. The United States at least has to be prepared for a situation where President Kennedy's nightmare possibly could become a reality.