

Nuclear Matters

And in the context of the 2020 U.S. presidential election...

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Amidst the coronavirus pandemic, North Korea launched four nuclear missiles towards the Sea of Japan as a part of a rapid arms-testing program over the past three months.

Other nations, too, have continued developing their ballistic arsenals over the past year despite global agreements and treaties. For example, the Iranian government violated the Joint Comprehensive Plan of Action (the JCPOA, also known as the Iran nuclear deal) passed in 2015 by continuing to surpass the agreed-upon uranium enrichment and stockpile levels in late 2019; however, it is worth noting that the United States did leave the JCPOA before this and imposed stricter sanctions on Iran under the Trump administration.

As nations continue developing novel technologies and politicizing nuclear affairs, nuclear expansion and policy by all countries are thus pertinent, and this is true now more than ever, considering that the 2020 US presidential election is quickly approaching. The elected president's administration will guide America's foreign policy stances and nuclear security initiatives, such as reallocating the national defense budget as to invent and stockpile nuclear arms or even imposing sanctions upon other countries for being aggressive with arms testing. In short, to make informed decisions as a voter in this year's election—if current and future nuclear policy are important to you—it is beneficial to gain an understanding of American defense implements, the capabilities of other nations regarding nuclear arms, and present-day or upcoming international policies, especially as this year's presidential candidates propose them.

Here, we'll focus on the aforementioned examples of North Korea and Iran and how the American government has attempted denuclearization with these countries.

Guiding our current domestic nuclear policy, the Trump administration has worked to expand the US's nuclear arsenal by modernizing existing weapons and funding research to develop new technology, as opposed to actively working to reduce our stockpiles as the Obama administration did. As for foreign policy, our directives are shaped by being aware of how other countries are developing nuclear weapons, and this is generally done by tracking the heat and chemical signatures of the byproducts generated by plutonium and highly enriched uranium. Said foreign policy relevant to the two stated countries can be boiled down to the JCPOA and the voluntary initiatives by North Korea.

The JCPOA was created in July 2015 and established in conjunction with Iran by the US, China, the UK, France, Russia, and Germany to allow for nuclear research and a gradual transition to nuclear nonproliferation in Iran. Fundamental tenets of the Iran deal include cutting the number of operating centrifuges¹ in Iran to a half, not allowing new centrifuges to be

developed, and capping uranium enrichment and stockpile levels. Ultimately, the JCPOA was met with heavy criticism by US Republicans, resulting in Trump pulling America out of the deal in 2018 and opting to use maritime trade embargoes to choke the Iranian economy and force nonproliferation. North Korea declared a self-imposed moratorium on testing long-range nuclear missiles since 1999, and the US relaxed its sanctions in response. However, on January 1st, 2020, Kim Jong-Un declared that they would be lifting the nuclear testing moratorium and have continued conducting tests since. It is estimated that they have around 20-30 warheads and the capability of doubling this given their recent technological advances in developing enriched uranium via centrifuge facilities.

And for a brief discussion on presidential candidates' policies: Howie Hawkins, the frontrunner of the Green Party, pledges to "unilaterally disarm" American arsenals to a minimum and to pass the Treaty on the Prohibition of Nuclear Weapons, a denuclearization agreement that would lead to the complete elimination of nuclear weapons. Jacob Hornberger, the frontrunner of the Libertarian Party, advocates for non-interventionism as a whole but does not explicitly state anything about nuclear weapons in his platform.

To summarize, the critical differences between the only presidential candidates who directly address North Korean and Iranian nuclear nonproliferation are that Trump will maintain a "maximum pressure campaign" with both Iran and North Korea via strict economic sanctions, whereas Biden will pursue a diplomatic approach by a) reentering the JCPOA and thereby allowing Iran to continue nuclear research while still limiting its enrichment, as well as b) working with China and American allies to denuclearize North Korea.

It appears that both parties have distinct stances on nuclear policy, and the decisions our elected leaders make relevant to this—especially regarding our alliances with other countries—could potentially impact our futures as Americans.

Thus, consider continuing to familiarize yourself with nuclear policy in candidate platforms and voting accordingly this fall.

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1. Centrifuges (refer to the technical note for more information) are integral to concentrating uranium and purifying U-235 from U-238 atoms. Uranium-based nuclear weapons are created by placing purified uranium metal by a chemical explosive (and a bullet, depending on proximity) and enveloping it in a shell.

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