



International Physicians
for the Prevention of Nuclear War



**Submission to the UN Secretary-General on Autonomous Weapons Systems
Pursuant to UN Res 78/241
24 May 2024**

We welcome the UN Secretary-General's initiative to address the challenges related to lethal autonomous weapons systems and the role of humans in the use of force. Because of our expertise on the catastrophic humanitarian impacts of nuclear weapons, IPPNW is particularly concerned with the danger of nuclear escalation arising from the use of artificial intelligence (AI) and machine autonomy in nuclear command and control.

IPPNW is profoundly alarmed by both the growing risk of the use of nuclear weapons, whether by accident, design or miscalculation, and the simultaneous rapid development and deployment of advanced AI systems in the defense sector. The integration of AI and automation into nuclear command and control would mark a new era of exponential risk to humankind.

We underscore the warnings of experts in the field that an AI arms race is already underway. According to Connor Leahy¹, "Whoever has the least humans in the loop, they can act the fastest...giving more and more to the machines, until one day we're just not in control anymore. It's a race to the bottom. There can be no winner – and the only loser is humanity."

We recall the incident in 1983 when one man, Soviet Lieutenant Colonel Stanislav Petrov, refused to respond to a false warning of an incoming US ICBM². Within a few fateful minutes, he intervened and, exercising his discretion, broke with "launch on attack" protocol. His reasoned judgment likely saved human civilization.

Almost 80 years into the nuclear era, we have survived not because of wise leaders, sound military doctrine, or infallible technology but because of luck. Recent events have laid bare how incredibly dangerous it is to gamble the future of the world on a hope for indefinite good luck.

An even more dangerous future may be fast approaching. If human agency is removed from nuclear command and control, then the fate of humanity will rest with self-taught machines that will make the snap decision whether to launch on warning.

Turning control of nuclear weapons over to autonomous AI is irresponsible madness. We therefore support efforts to regulate, through national legislation and binding multilateral agreements, the development, deployment and use of AI and autonomous weapons systems in nuclear weapons command and control. As we work toward the universalization of the Treaty on the Prohibition of Nuclear Weapons (TPNW), and the complete abolition of nuclear weapons, it is crucial that humans maintain control over the use of nuclear weapons. The international community must begin the processes of building a permanent firewall between AI and nuclear weapons.

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¹ Co-founder and CEO of Conjecture, an AI startup working on controlling AI systems. BBC News. 2 May 2024.

² Stanislav Petrov, 'The Man Who Saved The World,' Dies At 77. NPR 18 September 2017.