Opinion

What happens when our nuclear arsenal is hacked?

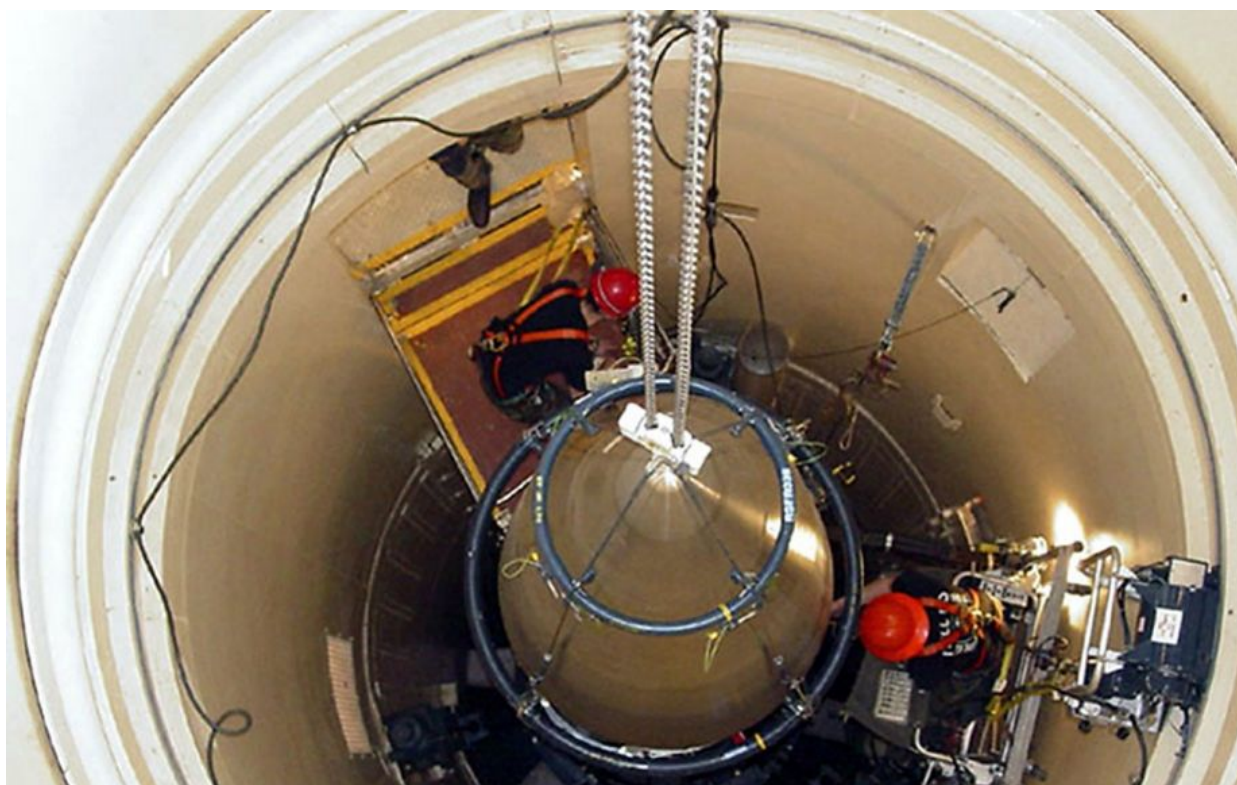By Joe Cirincione | June 17, 2015 | Updated: June 17, 2015 9:12pm

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Photo: John Parie, Associated Press

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In this image released by the U.S. Air Force, a Malmstrom Air Force Base missile maintenance team removes the upper section of an ICBM at a Montana missile site. An Air Force unit that operates one-third of the ... more

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One of the most chilling comments I've ever heard was the former commander of U.S. nuclear forces telling a San Francisco audience this month that our nuclear missiles could be hacked — launched and detonated without authorization.

If you thought this was just a fantasy
from the sci-fi movie, "Terminator,"
think again.

Retired Marine Gen. James Cartwright used to have his fingers on all the nuclear buttons. As a former head of the U.S. Strategic Command, he was responsible for more than 5,000 nuclear weapons targeted at cities around the globe.

So when he told almost 200 Bay Area business, civic and philanthropic leaders gathered last week for the annual Ploughshares Fund gala that our nuclear strategy "made no sense," he got their attention. But when he told them that our nuclear forces are hit by countless cyberattacks, he sent chills down their spines.

There are only two realities in the modern, interconnected world, he warned: "You've either been hacked and not admitting it, or you're being hacked and don't know it."

A key problem, he said, is that we keep hundreds of missiles on "hair-trigger" alert — a vestige of the Cold War that enables the launch of fully armed nuclear weapons in under 15 minutes. "They are called Minutemen for a reason," Cartwright noted, referring to the 450 long-range ballistic missiles still in underground silos, each tipped with a nuclear warhead 20 times the size of the bomb that leveled Hiroshima.

These silos can withstand nuclear blasts, but can they withstand the 10 million hacking attempts launched daily at the agencies in charge of our nuclear weapons?

U.S. officials have assured the public that they defeat the vast majority of these attacks. But computer experts agree: No matter how sophisticated your defenses, a determined foe can break in. "It just makes no sense to keep our nuclear weapons online 24 hours a day," Cartwright concluded. Sooner or later, something terrible will happen.

There is an easy fix, said the former commander: unplug.

The Cold War is over. We no longer have to be ready to launch a nuclear holocaust in minutes. We can reduce our forces — and the Russians' — to a few hundred weapons, and keep those weapons in modified alert, with missiles offline and warheads removed. If needed, they could be ready for use within hours, but no one could launch them by mistake or by cybersabotage.

Cartwright goes further. Air Force plans for a new fleet of long-range missiles could cost more than $100 billion, but Cartwright suggests retiring these obsolete weapons. A smaller force of bombers and submarine-based missiles can do their missions.

In a report co-authored with his former Russian military counterparts, he recommends both nations "shed vulnerable forces and depend upon leaner, smaller but highly survivable nuclear forces" as we explore their complete elimination.

CYBERSECURITY AND HACKING

Military, intelligence data exposed in hacking attack

Hacked agency has history of security problems

Hackers got personnel data on every federal employee

Hack of federal records shows security weakness

Chinese hackers may have stolen insurance company data

China suspected in massive breach of federal personnel data

This seems a better plan then a new nuclear arms race. Indeed, the U.S. government is expected to spend more than a $1 trillion on a new generation of missiles, bombers and subs. The Russians and Chinese are building new systems, too.

Cartwright's commonsense approach can stop this arms race before it gets out of control. And before we lose control of our own weapons and someone hacks their way into Armageddon.

Joe Cirincione is president of Ploughshares Fund, a global security foundation based in San Francisco and Washington, D.C.