

A VIEW FROM THE WOODS

Hobbling Toward Oblivion; or, Nuclear Warfare Narrowly Missed

Now that the Ukraine war looks like it will drag on indefinitely and the Russian authorities have hinted at using nuclear weapons in that sad conflict, it's worth thinking hard about how close we are to the brink. For the past year and a half, The Bulletin of Atomic Scientists has kept its Doomsday Clock at 100 seconds to midnight, closer than it has ever been.

Readers of a certain age will vividly remember the Cuban Missile Crisis of 1962, when humanity narrowly averted a full-scale nuclear war. Many members of the public believe this event is the only such near miss in our history. It isn't. And while the chances of a nuclear war breaking out in any given year are extremely remote, the possibility of such a catastrophe occurring increases with time. As former defense secretary William Perry has pointed out any number of times, it is chiefly by dumb luck that we have dodged the nuclear bullet. The question, then, is how long our luck can hold out.

Here is a sample of close calls:

October 5, 1960: US early warning radar at Thule, Greenland reported a Soviet missile attack aimed at the United States, and the North American Air Defense Command (NORAD) went on maximum alert. Soviet leader Nikita Khrushchev was in New York at the time, which raised doubts about the alarm in time to avert war. As it turned out, Thule's radar had mistaken a moonrise over Norway for a Soviet missile attack.

November 24, 1961: A breakdown in communications among the Strategic Air Command (SAC), NORAD, and the early warning radar station at Thule led to an alert about a Soviet missile attack. The alert was called off when a US bomber crew made contact with Thule and found that no such attack was taking place. AT&T was supposed to provide backup circuits for the communication system, but had not done so, despite assuring the government that it had.

November 9, 1979: Computers at NORAD headquarters reported a major Soviet attack on the United States, setting off a full scale alert. After six minutes without confirmation, officials called off the alert. As it turned out, the computers had misinterpreted a training tape as a Soviet missile attack. After the incident, senior State Department adviser Marshall Shulman stated, "false alerts of this kind are *not* a rare occurrence. There is a complacency about handling them that disturbs me."

March 15, 1980: As part of a training exercise, the USSR launched four submarine-based missiles from near the Kurile Islands. A US early warning sensor temporarily led US officials to suspect the launch was a Soviet missile attack.

June 3 and 6, 1980: Warnings of a Soviet missile attack set off yet more alerts at SAC, though the alerts were suspended when warning systems showed no further evidence of attacks. Later on, the Defense Department traced the false alerts to a failed computer chip.

September 26, 1983: A Soviet early warning satellite mistakenly took the sun's reflection from the tops of clouds as a US flight of five land-based missiles aimed at the USSR. Since the satellite was working properly, Soviet authorities would ordinarily have interpreted the warning as genuine. The Soviet officer on duty,

Stanislav Petrov, thinking that a US attack with only five missiles was highly unlikely, played his hunch and told his superiors before he knew it that the alarm was false. He thereby prevented a nuclear war.

January 25, 1995: Norwegian scientists were engaged in a study of the northern lights when Russian early warning radar mistakenly interpreted the launch of a Norwegian research rocket as a US missile aimed at Russia. When Russian satellites showed no additional launches, Russian leaders declared the incident a false alarm.

August 29-30, 2007: Six nuclear-armed cruise missiles were mistakenly loaded onto a B-52 at Minot Air Force Base in North Dakota, but no one bothered to check if the missiles were live. For a day and a half, no one in the Air Force was aware that six live nuclear missiles were missing. Responding to the slip-up, retired Air Force General Eugene Habiger declared, “I have been in the nuclear business since 1966, and am not aware of any incident more disturbing.”

October 23, 2010: For nearly an hour, the launch control center at Warren Air Force Base, Wyoming, lost contact with 50 Minuteman III ICBMs under its control. It was later found that a circuit card in one of the base’s computers had been improperly installed during routine maintenance.

So far, we have dodged the nuclear bullet. Who knows how long our run of luck will last?

References:

Union of Concerned Scientists, “Close Calls With Nuclear Weapons,” April 2015

Max Tegmark, speech at MIT, April 2, 2016

William J. Perry, speech at MIT, April 2, 2016

William J. Perry, *My Journey at the Nuclear Brink*, Stanford University Press, Stanford, California, 2015

Eric Schlosser, *Command and Control*, New York, NY, Penguin Press, 2014

Marshall Shulman, Memo to Secretary of State Cyrus Vance, Washington, DC, US Department of State, November 16, 1979

M. Ambinder, “Failure Shuts Down Squadron of Nuclear Missiles,” *The Atlantic*, Oct. 26, 2010

submitted by John Raby, June 15, 2022