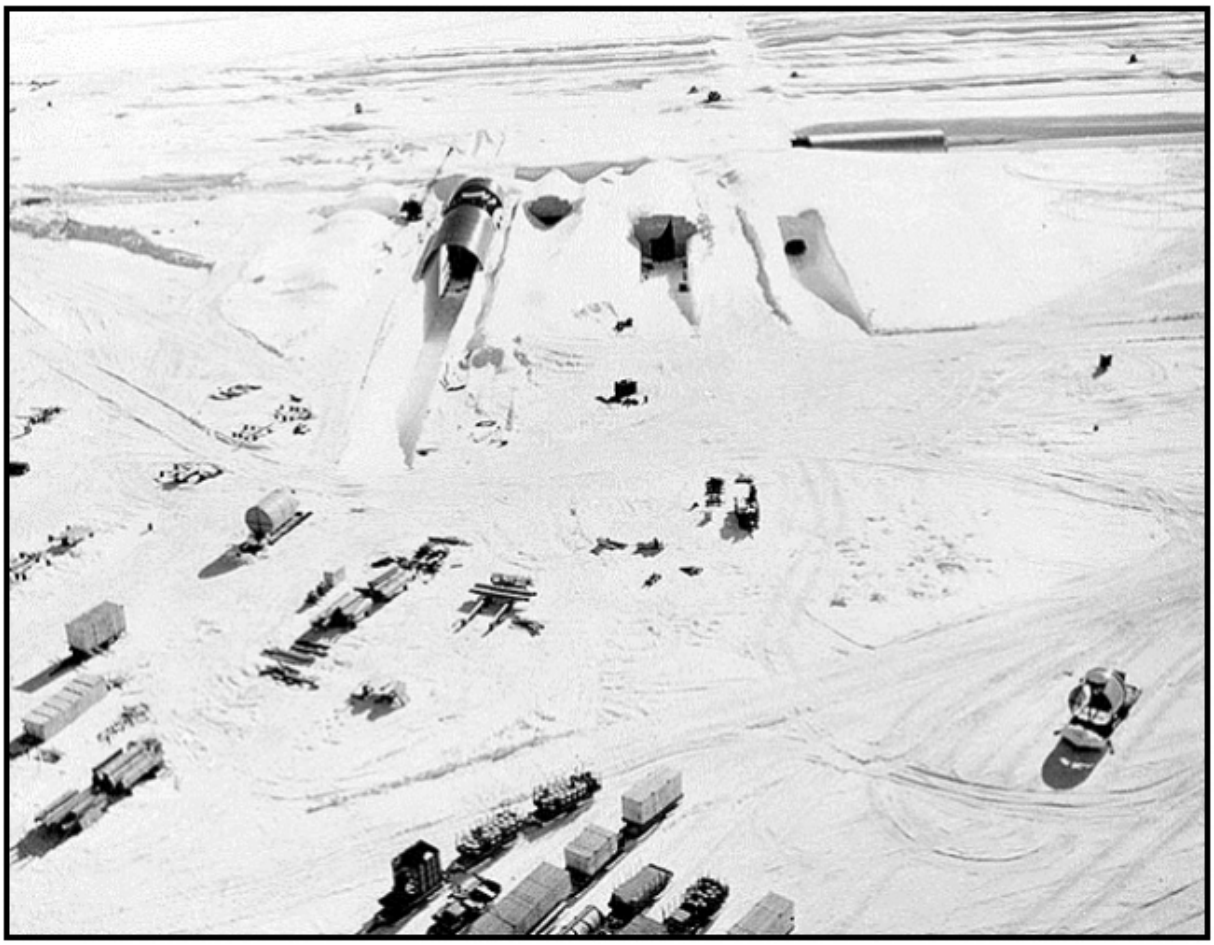
By Andrea Thompson

From Climate Central | Original Article

When the U.S. military abandoned Camp Century, a complex of tunnels dug into the ice of northwest Greenland, in the mid-1960s, they left behind thousands of tons of waste, including hazardous radioactive and chemical materials. They expected the detritus would be safely entombed in the ice sheet for tens of thousands of years, buried ever deeper under accumulating layers of snow and ice.



The northeast portal to Camp Century during construction in 1959. Credit: U.S. Army

But a new study suggests that because of warming temperatures that are driving substantial melting of the ice, that material could be exposed much, much sooner – possibly even by the end of this century – posing a threat to vulnerable local ecosystems.

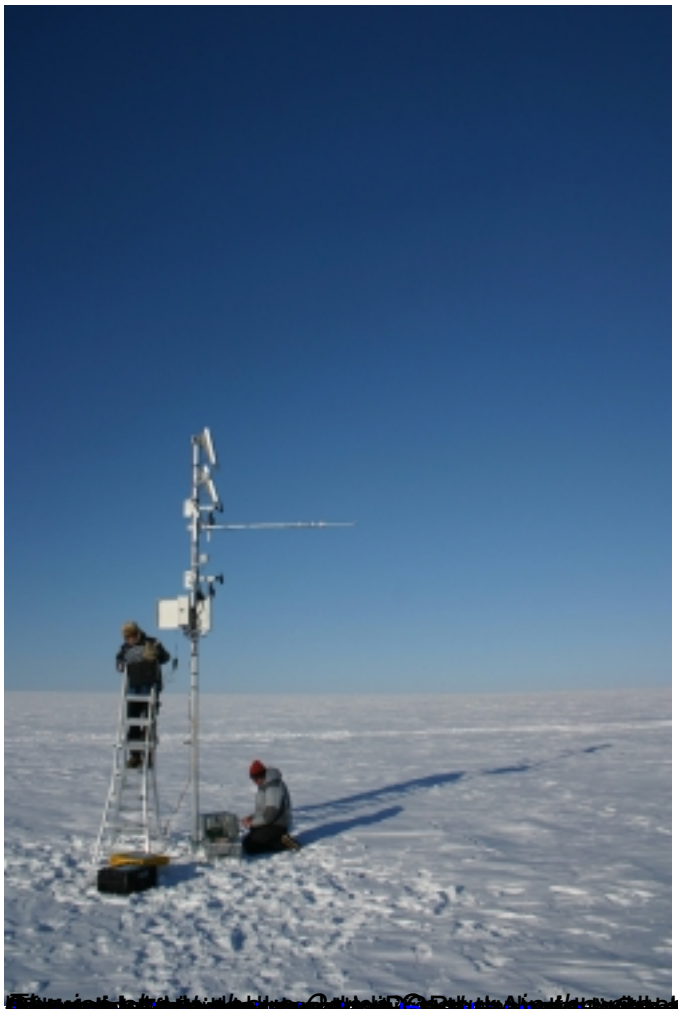
These remnants of the Cold War are also an example of an unanticipated political issue that could arise because of the effects of climate change, particularly as countries seek to establish a presence in the Arctic as warming makes it increasingly accessible.

“We think it’s a nice case study for this kind of political tension stemming from climate change,” study author William Colgan , a glaciologist at York University in Toronto, said.

What Lies Beneath

Today, the site of Camp Century, located 125 miles from Greenland’s northwest coast, is “just blue skies, flat white ice sheet,” Colgan said.

But nearly 120 feet below the surface, an estimated 9,000 tons of material sits spread over an area the size of about 100 football fields. That material includes everything from buildings and railways, to tanks of diesel fuel, radioactive coolant, and likely an unknown amount of toxic polychlorinated biphenyls (PCBs).

Camp Century was known to Colgan and other glaciologists as the site where the first deep ice core was drilled. These cylinders of ice let scientists sample old layers of the ice to better understand the climate of the past.

Camp
Century