SITE HISTORY

The LO-13 Site comprises two parcels known as the Launch and Control Sites. Both Sites are located west of Route 1A/Route 165 in Caswell, Maine, and the Control Site is located approximately 0.5 miles northwest of the Launch Site. The following provides a description of each Site:

Launch Site Description
The 17-acre Launch Site is located off Route 1A and was developed with three missile silos, a missile maintenance (assembly and test) building, a warhead building (current shop building), a generator building, acid storage shed, an oil shed, barracks, and a water pump house (currently demolished). The Site perimeter remains secured with a chain-link barbed wire topped fence that divides the Site into two portions: the eastern unlocked residential portion, which contains the barracks building and foundation of the demolished water supply pump house, and the western launch portions, which contains the launch related structures.

The barracks building was adapted to comprise three residential apartments that were vacant since approximately 2007 but were renovated in May 2021 for residential use; the barracks are not currently used as residences. The eastern half of the barracks is used for miscellaneous storage. The pump house adjacent to the barracks building was demolished around 2012 or 2013, and a remnant pile of concrete blocks remained at the Site (unknown if it was removed). The remainder of the Site buildings are used for storage and vehicle maintenance. One missile silo had been modified for storage of large items during winter (e.g., boats, recreational vehicles, automobiles) while the other silos are inoperable.

Control Site Description
The Control Site was developed with a former administration building, mess hall, paint shed, and a barracks and officer quarters (later used as a garage and residence) as well as several generator buildings (the larger of which has been demolished). Currently, all buildings are vacant and in various stages of deterioration except for a portion of the administration building that has been renovated for part time seasonal residential use. Four former radar towers also remain along the northwest edge of the Site (Figure 1). The Site formerly had two generator buildings along the road to the towers, which were demolished in conjunction with prior underground storage tank (UST) removal and associated remediation. The Site perimeter is locked with a chain-link barbed wire topped fence.

Figure 1: Radar towers located at the Control Site

Radar towers. Three of four top platforms have been dismantled as of 2013 (2017).

Radar towers. Three of four top platforms have been dismantled as of 2013 (2017).

Surrounding Vicinity

The area surrounding the Launch and Control Sites is undeveloped with sparse residences along Route 1A and agricultural uses within the surrounding mile. The nearest population center is located 3 miles northeast in Grand Falls, New Brunswick, Canada.

Site History

Prior to construction of the Launch and Control Sites, the LO-13 Site was undeveloped woods and farmland. The Control Site was purchased by U.S. government on December 8, 1955; the western portion of the Launch Site was purchased on December 27, 1955; and the barracks portion of the Launch Site was purchased on February 27, 1957, and May 25, 1963. The Launch Site and the Control Site (i.e., then known as the Nike Battery) were constructed between 1955 and 1957 for use as a surface to air anti-aircraft missile facility. The LO-13 Site was declared excess under order SF-118 numbers NED-154 for the Launch Site on February 1, 1967, and NED-154A for the Control Site on November 27, 1967. The following summarizes Site-specific history for each of the two Sites.

Launch Site History

The Launch Site was historically operated as part of the Nike missile program between 1955 and 1967 where assembly, testing, maintenance, battery installation, ethylene oxide fueling, and prepping of Nike missiles occurred. The Launch Site was equipped to handle Nike Ajax and Hercules-class missiles and has three subsurface launch silos. Missiles were handled primarily in the warhead building that contained an acid neutralization pit. This area was used to fuel and refuel missiles during maintenance and comprised a concrete pad design to collect the jet fuel, red fuming nitric acid, and unsymmetrical dimethylhydrazine and discharge it to the exterior swale.

The Launch Site was also developed with a barracks building in the eastern portion of the Site and shop and generator buildings between the barracks and the warhead building.

Control Site History

The Control Site was historically operated as part of the Nike missile program between 1955 and 1967 where detection, tracking, and routing of missile launches would have occurred. The Control Site operated with four radar towers, several generator buildings and personnel buildings (administration, mess hall, barracks). Radar towers were frequently cleaned using solvent based

cleaning products to ensure continued operational efficiency. Additionally, radar controls were often housed in mobile trailers or vans. These vans were likely stored in the parking area along the eastern side of the access road into the Site.

After 1967, the property was sold into private ownership by GSA. The Site was used for storage by multiple owners through approximately 1978. After that time, the property owner began using the Site for residential homestead purposes. The former barracks building was used as a residence and other portions of the Site were used for growing food. The other buildings at the Site were used for storage or remained vacant. Since 1998, the property has been primarily vacant and used only for storage or periodic seasonal use by various owners.

FUDS ELIGIBILITY

Some sites, formerly used by the Department of Defense (DoD), are eligible to be cleaned up by the government under the Defense Environmental Restoration Program, Formerly Used Defense Sites (DERP-FUDS). The Site was determined to be eligible for the DERP-FUDS program in 1993 following completion of an Inventory Project Report prepared for USACE. The U.S. Army is the lead agency and USACE has mission execution authority under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) for the USACE FUDS Program. USACE executes the FUDS Program on behalf of the DoD. The Maine Department of Environmental Protection (MEDEP) has participated by providing regulatory oversight.

ENVIRONMENTAL INVESTIGATION ACTIVITIES

A series of environmental investigations were performed at the Nike LO-13 Launch and Control Sites between 1992 and 2017.

Launch Site Investigations

Initial assessments in 1992 identified several underground storage tanks (USTs), including a 2,000-gallon fuel oil tank and a 4,000-gallon diesel tank. In 1994, under the direction of the Maine Department of Environmental Protection (MEDEP), these tanks were removed. During the removal, approximately 290 tons of petroleum-impacted soil were excavated and disposed of off-site. While the majority of the source was removed, some impacted soil remained in place due to the structural integrity of nearby buildings.

Due to the existence of polychlorinated biphenyls (PCBs) in three on-site transformers in 1994, USACE performed follow-up soil sampling in 2015 to assess potential releases. PCB concentrations in the soil were found to be below laboratory reporting limits.

TCE was detected in groundwater below the Environmental Protection Agency's (EPA's) maximum contaminant level (MCL) in one on-site monitoring well in 1997, located in a downgradient area on the Launch Site near the acid neutralization and fueling area. This was likely from a minor source of TCE near the warhead building or shop, which could, for example, be related to the past use of TCE for cleaning and sporadic discharge to surface soil. No TCE was detected in an off-site downgradient well during sampling conducted in August 2025.

From 1996 through 2017, multiple rounds of soil and groundwater investigations were conducted to delineate the extent of the petroleum contamination. Although groundwater initially showed

petroleum concentrations above the Maine Maximum Exposure Guidelines (MEGs), long-term monitoring through 2010 demonstrated that concentrations had decreased below laboratory reporting limits. In 2016, a supplemental investigation using modern MassDEP methods confirmed that while low levels of hydrocarbons and one specific compound (benzo(a)pyrene) remain, they do not pose a risk to human health or the environment.

Control Site Investigations
Environmental investigations at the Control Site began in 1992 to assess five USTs and several pole-mounted transformers. Between August and September 1994, all five USTs were removed. The most significant release was identified at a 6,000-gallon diesel tank, which required the demolition of the generator building to facilitate the removal of 840 cubic yards of impacted soil.

In addition to petroleum, investigations in 1996 and 1997 focused on potential solvent use by the military. Low levels of trichloroethene (TCE) were detected in soil and groundwater near the former radar towers, though concentrations remained below the EPA's MCLs and state standards.

Groundwater monitoring was performed periodically between 1996 and 2000. While early results showed DRO concentrations above the 50 µg/L state guideline in some monitoring wells, the site's drinking water well was consistently sampled and found to be free of petroleum and TCE contamination. Based on the findings that the remaining contamination was "weathered" (naturally degraded) and the lack of impact on drinking water, the site was recommended for continued monitoring of natural attenuation. Sampling was conducted at on-site monitoring wells until 2012, when concentrations dropped below laboratory reporting limits and sampling was discontinued. Additional sampling was conducted in 2017, and no concentrations of petroleum compounds that would represent a risk to human health were detected in groundwater samples.

Current Site Status
Collectively, these investigations served to identify, delineate, and remediate the source areas at both the Launch and Control Sites. The remedial actions taken in the 1990s removed the bulk of the contaminated mass. Recent data suggests that the low-level petroleum and TCE impacts do not pose a risk to the current drinking water supplies or residents.

The Remedial Investigation Report for the project was finalized in March 2026 and recommended No Further Action for the site based upon the Human Health Risk Assessment, the Screening Level Ecological Risk Assessment, and Petroleum Assessment.

FUTURE WORK

A Proposed Plan recommending No Further Action is under development by USACE and will be available for public comment following review by the Maine Department of Environmental Protection. A public meeting will be held locally near Caswell, Maine during the public comment period to answer questions or record public comments.

COMMUNITY OUTREACH

Environmental reports and studies developed as part of the investigation are available at the USACE, New England District and in the local Information Repository located at the Caribou Public Library 30 High Street Caribou, Maine 04736.

HOW TO CONTACT US

If you have questions or comments about the environmental investigation activities, please contact:

Ms. Grace Carmichael
U.S. Army Corps of Engineers, New England District
696 Virginia Road
Concord, MA 01742-2751
Phone: 978-318-8788
Email: allison.g.carmichael@usace.army.mil