



Fort Nathaniel Greene, Rhode Island

April 2022

Background

DoD uses and manages operational ranges to support national security objectives and maintain the high state of operational readiness essential to its mission requirements. The Department conducts non-regulatory, proactive, and comprehensive operational range assessments (ORAs) to support the long-term sustainability of these ranges while protecting human health and the environment. The purpose of an ORA is to determine if there is a release or substantial threat of a release of munitions constituents (MC) from an operational range to an off-range area that exceeds an applicable regulatory standard or creates a potential unacceptable risk to human health or the environment.

The Army ORA effort was developed to address DoD requirements detailed in DoD Directive 4715.11 (10 May 2004) and DoD Instruction 4715.14 (15 November 2018). The overall objective of the ORA is to assess operational ranges/range complexes to determine if an off-range MC release or substantial threat of an off-range MC release exists; if an off-range MC release exists, does it exceed an applicable regulatory reporting standard; and if an MC release or substantial threat of a release exists, determine whether it creates a potentially unacceptable risk to off-range human health or the environment. Army ORAs assess potential off-range migration of MC along surface water system and groundwater migration pathways.

Installation Overview

Fort Nathaniel Greene is located within Washington County, Rhode Island, just west of the Narragansett Bay. Fort Nathaniel Greene includes three operational ranges, three maneuver training areas encompassing 96 acres. The installation is part of the 99th Readiness Division and has been active since 1939. Fort Nathaniel Greene was originally established for coastal defense and was outfitted with two 16-inch guns.

Operational Range Assessment Findings (04/2022)

- Based on updated data, no off-range MC release nor substantial threat of an off-range MC release exists due to the limited source. The operational ranges remain categorized as Unlikely.

Next Steps

The installation's operational range should be included in the FY23-27 cycle of ORAs to meet DoD Policy (DoDI 4715.14) re-assessment requirements.

Map of Range/Range Area



Installation Overview (continued)

The gun battery, known as Hamilton Battery, was active from 1940 to 1945. A total of 32 practice rounds were fired from Hamilton Battery during this time frame and no combat rounds were fired. Following deactivation of Hamilton Battery, Fort Nathaniel Greene was used for maneuver training and included a small arms range that was remediated under the Installation Restoration Program.

Previous Assessment Overview

The 2009 Phase I identified three operational ranges at Fort Nathaniel Greene with all three operational ranges eligible for assessment under the ORA. Two of the operational ranges were deemed Unlikely due to a limited source of MCOC. A potential source of MCOC was identified at the third maneuver training area as it included the former Hamilton Battery. At the time of deactivation, it was unknown what happened to any propellant associated at Hamilton Battery, and it was determined that the excess propellant could have been buried or burned within the maneuver training area. As such, a potential source of historical MCOC (nitrocellulose) was determined to be potentially present.

No viable surface water pathway was identified as no surface water bodies were present at Fort Nathaniel Greene and stormwater infiltrates to groundwater. A potentially complete groundwater pathway was identified as MCOC could leach to shallow groundwater and be transported off range to the Narragansett Bay. Both human and ecological receptors were identified. As such, the maneuver training area was deemed Inconclusive and recommended for an ORA Phase II.

The 2012 Phase II ORA involved no field sampling efforts and collected addition data. Based on the additional data collection, the potentially complete groundwater pathway identified during the 2009 ORA Phase I was deemed incomplete due to a limited source of MCOC based on the following:

- Lack of current munitions use

Previous Assessment Overview (continued)

- A limited number of pyrotechnics and small caliber blanks historically used at the installation, but no current munitions use
- Lack of evidence of propellant disposal at Fort Nathaniel Greene
- Investigations of a potential propellant disposal area indicated no propellant was disposed at the area
- Nitrocellulose readily breaks down in the environment and any remnants of propellant would likely have dissipated

As such, the Phase II ORA determined there were no potentially complete migration pathways to off-range receptors due to a limited source of MCOC. The Phase II ORA recommended that all operational ranges be re categorized as Unlikely and placed into the review cycle to be periodically re-evaluated.

Advanced Assessment Overview

At the completion of the teleconference and subsequent data collection efforts, all new data and information obtained was evaluated to update the CSM. Interviews with 99th Readiness Division personnel confirmed that the range layout is consistent with the 2012 Phase II ORA and no new ranges have been constructed at the installation. In addition, 99th Readiness Division personnel indicated the operational ranges at Fort Nathaniel Greene continue to be utilized for maneuver training involving no use of military munitions. As no munitions are expended at the range, there remains a limited source of MCOC. No changes to the CSM occurred as a result of data collection and evaluation during this assessment cycle.

The re-evaluation of all data contained within the 2012 Phase II ORA and an evaluation of updated data gathered during the Advanced Assessment indicate that the three operational ranges at Fort Nathaniel Greene continue to be used as maneuver training areas with no usage of munitions. As such, there is a limited source present at the operational ranges. No new pathways or receptors were identified. Therefore, the three operational ranges remain unlikely to have potential MC migrate off range and adversely affect human or ecological receptors.

For more information on Fort Nathaniel Greene contact the 99th Readiness Division [732-575-4915]

For more information on the DoD Operational Range Assessment Program visit <https://www.denix.osd.mil/orap/home/>