



# Operational Range Assessment Seymour Johnson Air Force Base

## Air Force Operational Range Assessment Program

May 2024

### 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 DAF Operational Range Assessment Program (ORAP), established to comply with DoD policy, sets forth procedures for consistently conducting ORAs throughout the Air Force. The DAF ORAP assessment methodology uses an installation-wide approach to verify the ORAP inventory and accomplish range-specific assessments. An Air Force ORA is comprised of two primary phases: Qualitative Assessment, Phase 1 and Quantitative Assessment, Phase 2 (if required).

- Qualitative Assessment, Phase 1, encompasses records review, interviews, and visual survey.
- Quantitative Assessment, Phase 2, encompasses records review, interviews, visual survey, and environmental media sampling.

### Installation Overview

Seymour Johnson Air Force Base (SJAFB) occupies approximately 3,216 acres of land in central North Carolina. The base is adjacent to and southeast of Goldsboro, North Carolina. SJAFB has a geographically separate unit (GSU): the Dare County Range (DCR), an air-to-ground combat training range. The DCR is located about 160 miles east of SJAFB.

### ORAP Findings: May 2024 ORA Report

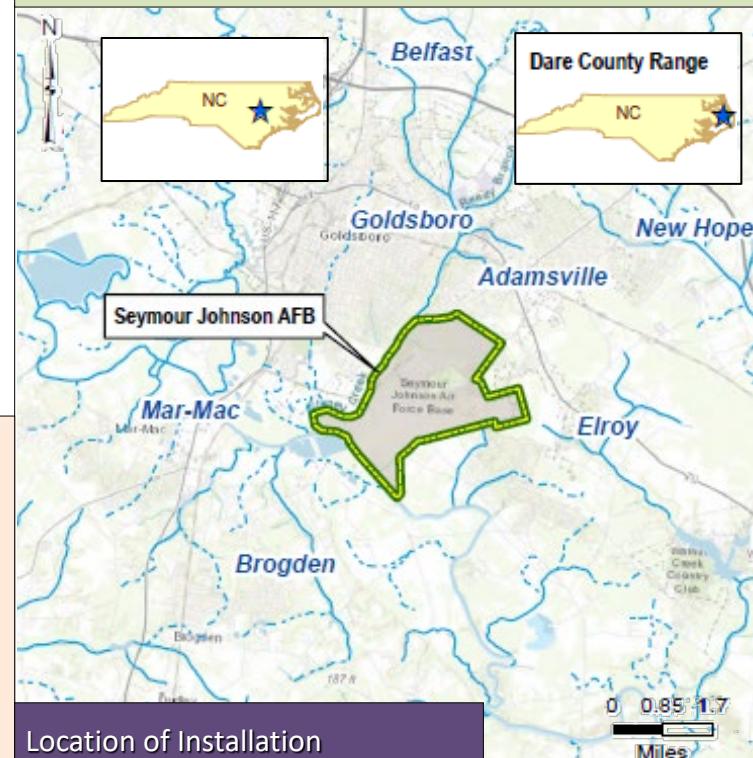
SJAFB has two operational areas.

- Range Complex: No MC (metals and explosives) release and no risks to human health or the environment.
- DCR: MC (explosives) may be transported through surface water and sediment. However, no off-range release of MC and no unacceptable risks to human health or the environment identified at this time.

### Next Steps

SJAFB is scheduled to be assessed in accordance with policy specifying periodic assessment at least every five years or sooner if significant changes occur that may impact assessment decisions.

- DCR is schedule for additional surface water and sediment sampling to further evaluate MC transport and risks to receptors.



Installation Overview Continued

There are currently two operational areas verified to be used for military training involving munitions and/or energetics: the Range Complex and the DCR.

Range Complex Overview / Assessment Summary

The Range Complex, encompassing 69.31 acres, is located in the southern portion of the installation. The Range Complex includes three sub-areas: 40-millimeter (40mm) Grenade Training Range, Explosive Ordnance Disposal (EOD) Proficiency Training Range, and Military Operations on Urban Terrain (MOUT) Range. The area is routinely maintained and recovered debris properly disposed of.

The 40mm Grenade Training Range began operating between 1965 and 1971. Training on light weapons systems with practice grenades is currently conducted once every two months.

The EOD Proficiency Training Range, cited in 1971, is currently used once or twice per month with less than five pounds of net explosive weight used per exercise.

The MOUT Range began operating in 2012. The area is used weekly for urban assault training with small-caliber Simunitions® and smoke grenades.

The prior Phase 1 assessments (2011 and 2017) indicated minimal MC (metals and explosives) deposition and all potential exposure pathways incomplete for human and ecological receptors.

The 2024 ORA periodic Phase 1 confirmed a limited MC source likely present in soils; however, the surrounding wooded area reduces possible transport. During the periodic Phase 1, no viable MC migration mechanisms were identified. As such, there is no threat of release nor risks to human or environmental receptors.

Dare County Range Overview / Assessment Summary

The DCR is approximately 46,619 acres in size just west of the town of Stumpy Point and 10 miles south of the town of Manns Harbor, North Carolina. The DCR began operations in 1965 and is surrounded by the Alligator River National Wildlife Refuge. DCR is used jointly by the Air Force and the Navy. Only training and intern munitions is authorized. Range clearance activities are routinely conducted by EOD personnel.

Prior studies under the ORAP (2004, 2006, and 2017) indicated no complete exposure pathways and recommended continued evaluation and monitoring under a Phase 2 ORA.

The 2024 periodic Phase 2 ORA confirmed a potential source of MC (metals and explosives) within range soils at the DCR due to bombing activities. A potential MC transport route was verified via runoff and leaching to surface water and groundwater, respectively. However, shallow groundwater is expected to discharge to adjacent surface water bodies. No potentially complete exposure pathway was identified for human receptors. Sensitive environments and species were identified in the surrounding area.

A potentially complete exposure pathway was identified for ecological receptors as MC (explosives) were detected in sediment within the drainages that flow off-range. Although MC determined to be migrating, no off-range release no unacceptable risks determined at this time.

Based on the conclusions for the 2024 periodic Phase 2 for the DCR, no further evaluation is warranted beyond the required periodic assessment. The next assessment should include additional (seasonal) surface water and sediment monitoring to evaluate potential MC at the DCR boundary and risks to ecological receptors.

For more information on this assessment or the Air Force Operational Range Assessment Program contact the Ranges Subject Matter Expert, Technical Branch, Environmental Quality Directorate, Air Force Civil Engineer Center  
For more information on the DoD Operational Range Assessment Program visit <https://denix.osd.mil/orap/home/>