Operational Range Assessment
Joint Base Charleston – Air Base

Air Force Operational Range Assessment Program February 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 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 USAF Operational Range Assessment Program (ORAP), established to comply with DoD policy, sets forth procedures for consistently conducting ORAs throughout the Air Force. The USAF 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 I and Quantitative Assessment, Phase II (if required).

- A Qualitative Assessment, Phase I, encompasses records review, interviews, and a visual survey.
- A Quantitative Assessment, Phase II, encompasses records review, interviews, visual survey, and environmental media sampling.

Installation Overview

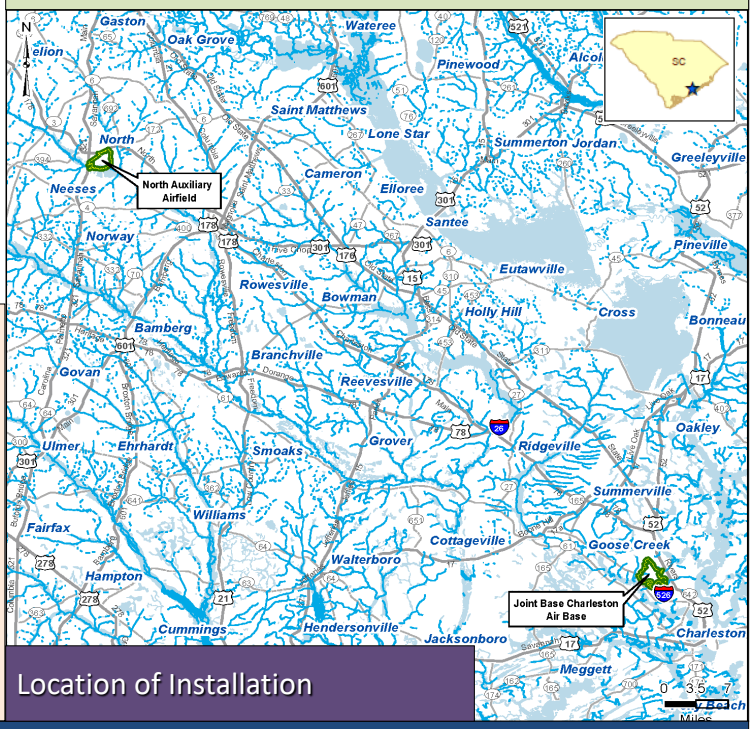
Joint Base Charleston – Air Base (JBC – Air Base) occupies 3,772 acres of land in southeast South Carolina within the city limits of North Charleston, Charleston County. The main base is located about 10 miles northwest of Charleston. JBC – Air Base has one geographically separate unit (GSU), North Auxiliary Airfield (NAAF), which is approximately 2,390 acres ~~in size~~.

ORAP Findings: February 2024 ORA Report

- No off-range munitions constituents (MCs) transport mechanisms were identified for the areas assessed.
- No actual or substantial threat of an off-range MC release exists for areas assessed at JBC-Air Base.
- No unacceptable risks to human health or the environment were identified for areas assessed.

Next Steps

JBC – Air Base is scheduled to be assessed in accordance with USAF and DoD policy specifying periodic assessment at least every five years or sooner if significant changes occur that may impact assessment decisions.



Location of Installation

Installation Overview (Continued)

During implementation of the ORAP at JBC – Air Base, two operational areas were verified to be used for military training involving munitions and/or energetics: the Range Complex (encompassing a small arms range [SAR], Machine Gun Range [MGR], Grenade Range [GR], and Explosive Ordnance Disposal [EOD] Range sub-areas); and the Security Forces Training Area (SFTA). Two ORAP-ineligible areas exist at JBC – Air Base: the Munitions Storage Complex and the Skeet/Trap Range.

The following summarizes ORAP efforts for the Range Complex and the SFTA. This is the third ORA for the Range Complex and the second ORA for the SFTA.

Range Complex Assessment Overview

Under the ORAP the SAR, MGR, GR, and EOD Range have been consistently assessed as a Range Complex. The Range Complex is approximately 38 acres and is located in the northwestern corner of the base.

The SAR and MGR sub-areas encompass approximately 0.25 acre each and are located in the southern end of the Range Complex. The GR sub-area is approximately 2.56 acres and is located in the central portion of the Range Complex. The EOD Range sub-area is approximately 3.37 acres and is located in the northern portion of the Range Complex.

The Range Complex is primarily used for training with small arms and light weapon systems with small arms ammunition and practice grenades. The Complex also includes a proficiency training range for EOD personnel that has a minimal explosive limit; however, the EOD training range has been inactive since 2016.

Range Complex Assessment Overview (continued)

The potential MC source areas include historical soil berm and infrastructure associated with the current SAR structure, the soil berm at the target area of the MGR sub-area, target area (soil) on the GR sub-area floor, and soils associated with historical detonation areas of the EOD Range sub-area.

The periodic ORA Phase 1 verified munitions use and suspected MC source media. The only possible MC transport mechanisms suspected are runoff and infiltration; however, no viable off-range MC migration mechanisms was identified. There is no threat of an off-range MC release and all exposure pathways were deemed incomplete.

During implementation of the ORA, a sustainment concern pertaining to sub-area surface danger zones (SDZs) was highlighted for the installation to further evaluation and address as needed.

SFTA Assessment Overview

The SFTA encompasses approximately 2,390 acres and is located on the same-sized NAAF GSU. Training can take place throughout the GSU.

No significant source of MC has been identified at the SFTA due to infrequent use of pyrotechnics (historically used) and blank rounds (historically and currently used).

The periodic ORA Phase 1 verified no significant MC source at the SFTA. Due to a lack of an MC source there is no expected MC migration from the training areas to off-range human or 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/