



Operational Range Assessment Joint Base Charleston – Air

Air Force Operational Range Assessment Program

February 2019

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 1 and Quantitative Assessment, Phase 2 (if required).

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

Installation Overview

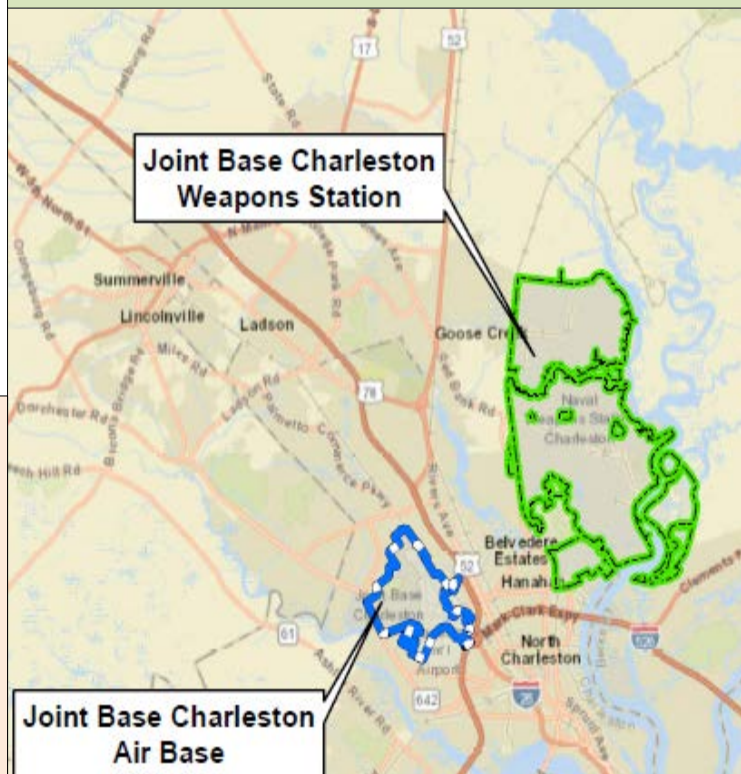
Joint Base Charleston (JBC) – Air, formerly Charleston Air Force Base, part of the Air Mobility Command, is located within Charleston County approximately 10 miles northwest of the City of Charleston, South Carolina. JBC-Air manages a geographically separate unit, North Auxiliary Airfield (NAAF), which is located in Orangeburg County, South Carolina, approximately 80 miles north of JBC – Air.

ORAP Findings: October 2017 ORA Report

- Migration mechanisms were identified as unlikely to transport munitions constituents (MC) to off-range locations.
- No actual or potential off-range migration of MC exists for the areas assessed.
- No unacceptable risks to human health or the environment were identified.

Next Steps

JBC – Air 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.



Installation Overview Continued

JBC – Weapons, discussed separately, is located approximately 15 miles northeast of JBC – Air.

During implementation of the ORAP at JBC – Air, five areas were verified as eligible for an assessment under the USAF ORAP – a Small Arms Range (SAR), Machine Gun Range (MGR), Grenade Range (GR), and Explosive Ordnance Disposal (EOD) Range (collectively identified as the Range Complex); and a Security Forces Training Area (SFTA) located on the NAAF. JBC-Air also contains a Skeet and Trap Range; however, as this range is used solely for recreational purposes it is ineligible for an assessment under the ORAP.

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

Range Complex Assessment Overview

For purposes of an assessment under the ORAP a virtual Range Complex was established due to close proximity of the individual ranges to each other. The Range Complex encompasses 38.64-acres and includes the SAR, MGR, GR, and the EOD Range.

- The SAR, originally constructed in 1992. The SAR is utilized almost daily. Only frangible munitions are currently permitted; however, historic use included non-frangible rounds.
- The MGR, constructed in 1986 is used about 1 to 2 times a week.
- The GR, established in 1987, is used twice a year for 40-mm practice grenade training. Also, the entire GR area is used for maneuver training using non-lethal dye marking rounds.
- The EOD Range was constructed in 1994 and has a 2.5-pound non-fragmenting high explosives limit. The area is used for proficiency training; however, emergency disposals are authorized.

Range Complex Assessment Overview Continued

In 2010 an initial Phase 1 ORA was finalized. The effort evaluated a Range Complex comprised of the SAR, MGR, GR, and EOD Range. Groundwater was the only potential pathway identified but was deemed unlikely due to a confining layer beneath the surficial aquifer. No complete pathways were identified, and no source-receptors interactions exist.

The 2017 Phase 1 ORA confirmed MC may be present in soils; however, due to site characteristics the air, soil, surface water/sediment were deemed unlikely to transport MC. Based on the depth to groundwater the potential for MC to leach to the surficial aquifer was identified, but vertical migration to potable aquifers was deemed unlikely due to an impermeable layer. The effort concluded MC is not migrating and no complete exposure pathways were identified.

SFTA Assessment Overview

The SFTA, encompassing approximately 2,390-acres, is used for maneuver training. Based on available data, the SFTA is assumed to encompass the entire NAAF parcel. The NAAF was acquired between 1942 and 1945, and used as a heavy bomber-training site. The area continued to be used as a remote operational training site through the 1950s. Currently, NAAF serves as an airdrop and field training site. The exact date in which the SFTA become operational is unknown. According to base personnel, the SFTA is used approximately once per quarter by various military units. Only small arms blanks are presently identified as being used. However, historic documents indicate other items were used such as grenades, smoke grenades, and signal flares.

In 2017 the initial Phase 1 was completed. The effort concluded, that the only suspected source of MC is from historic activities which may have resulted in limited MC being deposited in soils. Due to the limited MC expected to be present all mechanisms were deemed unlikely to transport MC. Therefore, all exposure pathways were determined to be incomplete for humans and 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/>