



# Operational Range Assessment Joint Base Charleston – Weapons

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

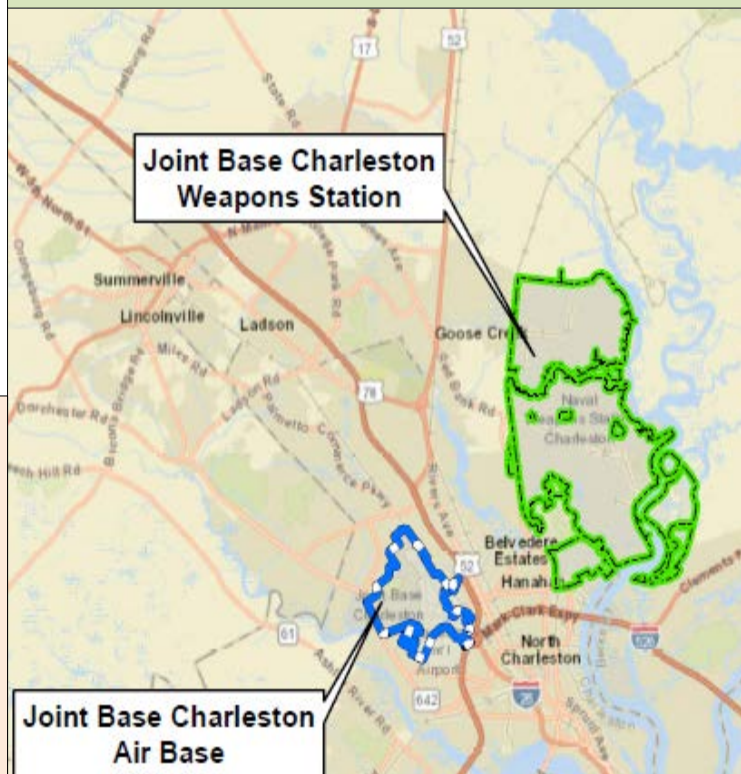
Joint Base Charleston (JBC) – Weapons, formerly Naval Weapons Station Charleston, is located in Charleston and Berkeley Counties approximately 15 miles northeast of JBC – Air. JBC – Weapons consists of four tracts on the west bank of the Cooper River, approximately 15 miles north of Charleston, South Carolina, and 13 miles inland from the Atlantic Ocean.

## 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 area assessed.
- No unacceptable risks to human health or the environment were identified.

## Next Steps

JBC – Weapons 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

Naval Weapons Station Charleston and Charleston Air Force Base (JBC – Air) merged into JBC, part of the Air Mobility Command, in October 2010.

During implementation of the ORAP at JBC – Weapons, three areas were identified as potentially eligible for an assessment under the USAF ORAP: the Northside Open Burn / Open Detonation (OB/OD) Unit; Federal Law Enforcement Training Center (FLETC) Range Complex; and Scenario Based Training Area (SBTA).

The following summarizes USAF ORAP efforts for the FLETC Range Complex only. This is the first ORA at the complex. The OB/OD facility is covered under a permit which requires multi-media sampling on a semi-annual basis. Due to being covered under an existing compliance program in which requirements are substantially equivalent to an assessment under the ORAP it was deemed unnecessary to duplicate evaluation efforts. Additionally, the newly identified SBTA was not evaluated and will be assessed during the next schedule ORA at JBC – Weapons. As such the OB/OD Unit and the SBTA are not be further discussed.

FLETC Assessment Overview

The FLETC encompasses 5.62-acres and includes five small arms ranges. The FLETC Range Complex is located on the northern portion of JBC – Weapons. FLETC is an interagency law enforcement training body for various U.S. government federal law enforcement agencies. Other range users include United States Coast Guard, Immigration and Customs Enforcement, U.S. Citizenship and Immigration Services, U.S. Courts, U.S. Marshalls, and the Naval Criminal Investigative Service.

The property containing the center has been owned by the U.S. Government since 1941, and in 1967 a small arms range (SAR) was constructed. The SAR (Range 5) was remediated and reconstructed in 1997. Also three small arms ranges (Range 1, Range 3, and Range 4) were constructed and one shotgun range (Range 6) was built. Note: Range 2 was never constructed.

FLETC Assessment Overview Continued

JBC owns the property on which the FLETC is built; however, the center is operated by the Customs and Border Protection Agency under a use permit.

- Range 1 has a footprint of 0.79-acre and is a multi-purpose range built to accommodate smaller pistols and 12-gauge shotguns. Range 1 has berms on three sides and an impact berm. The range has been inactive since 2012.
- Range 3, Range 4, and Range 5 all have a footprint of 1.16-acres each and are used at least weekly. The ranges are used for basic pistol and 12-gauge shotgun training. Occasionally, rifle rounds are used. Berms are present on three sides of each range, with an impact that spans the length of each range. The berms were originally made of soil, but in 2012, the berms were mined and reconstructed with chopped rubber.
- Range 6 has a footprint of 1.35-acres and is used approximately twice a year. The range is a combination skeet range and shotgun walkthrough range for 12-gauge shotguns. Range 6 has a layout consistent with a trap field as such no berms are associated with this range.

The 2017 initial Phase 1 ORA concluded MC may be present in soils at target areas, range floors, impact area, and within the backstop berms. Due to berm mining efforts in 2012, MC is anticipated to be limited on Ranges 3 through 5. Based on site characteristics the air, soil, surface water/sediment pathways were deemed unlikely to transport MC. Given depth to shallow 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 although there is a source of MC, off-range MC migration through air, soil, soils, surface water/sediment, or groundwater is not expected. Therefore, no complete exposure pathways and no risks to human and/or ecological receptors exist.

**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/>**