Operational Range Assessment
Savannah Air National Guard Base

Air Force Operational Range Assessment Program October 2021

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

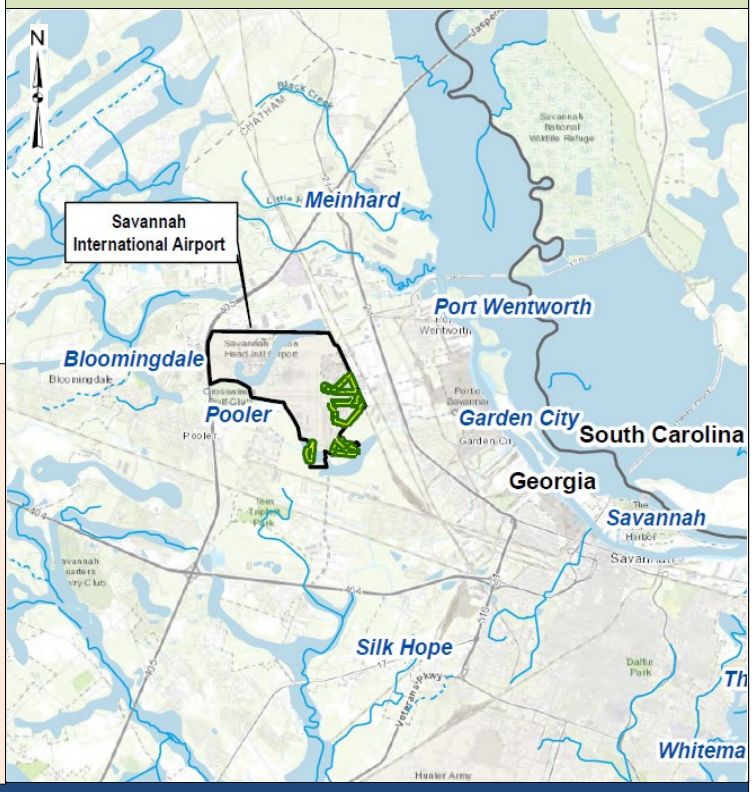
The Savannah International Airport (IAP) Air National Guard Base (ANGB) is located on 290.47 acres of land within four non- contiguous parcels adjacent to the Savannah Hilton Head International Airport (SHHIAP). The land is leased to the Air Force by the SHHIAP Commission. The ANGB is approximately 7 miles northwest of the City of Savannah, Georgia. Most of the base is fully developed for commercial or light industrial uses.

ORAP Findings: September 2021 ORA Report

- Munitions Constituents (MC) transport mechanisms deemed viable is runoff via surface water/sediment media and infiltration to groundwater.
- No actual or substantial threat of an off-range MC release exists for the area assessed at Savannah ANGB.
- No unacceptable risks to human health or the environment were identified for the area assessed.

Next Steps

Savannah ANGB is scheduled to be assessed in accordance with USAF and DoD policy specifying periodic assessment at least every 5 years or sooner if significant changes occur that may impact assessment decisions.



Installation Overview Continued

During implementation of the ORAP at Savannah ANGB one operational range was verified as eligible and assessed under USAF ORAP – the Small Arms Complex.

The following summarizes assessment findings at the Small Arms Complex. This is the second ORA for the Small Arms Complex, the range was initially evaluated in 2009.

Small Arms Complex Assessment Overview

The Small Arms Complex, encompassing roughly 4.2 acres, includes three sub-areas: one active eastern 25-meter Small Arms Range (SAR), one inactive western 25-meter SAR, and remnants of a former 100-meter rifle range.

The active eastern SAR is a partially-contained range consisting of a 20-point covered firing line, concrete range floor, side containment (20-ft-tall wooden walls), overhead baffles, dust collection system, and a bullet trap system. The inactive western SAR is surrounded by earthen side berms to the east and west, the back (impact) berm is to the south. This range is outfitted with a covered firing line and 15 firing points. The ground surface within the range is vegetated with short grass; the side berms consist of short grass and clusters of trees. Remnants of the former 100-meter rifle range include portions of a wooden backstop as well as side and impact soil berms. The downrange area and berms are vegetated with short grass and clusters of trees.

The area has been used for small arms training activities since 1968. A suspected one-time use of the Small Arms Complex area included M203 practice grenade rounds, which were collected and recycled. No visual evidence of this former activity exists. Additionally, training activities using Simunition® rounds occurs within the woodland area on the backside of the side and back earthen berms.

In the 2009 initial Phase 1 it was determined that vegetation and berm configuration inhibit potential MC transport.

Small Arms Complex Assessment Overview Continued

Although stormwater runoff and infiltration were identified as a potentially viable transport mechanisms, based on available data sufficient evidence exists to indicate there is no known or suspected off-range release of MC. The Small Arms Complex was recommended for a periodic Phase 1 re-evaluation.

The 2021 Phase 1 assessment verified training involving small caliber munitions may have deposited MC (metals) within soil at the impact berms associated with the inactive western SAR and former 100-meter rifle range and to a lesser extent the firing line and range floor of the active eastern SAR.

MC is suspected to be present within the soil (source media) at or near the impact/target areas, firing line/points, and range floor. Based on available data, potentially viable MC transport mechanisms via stormwater runoff and infiltration were confirmed for the Small Arms Complex. However, a visual survey of the area did not identify any drainage features indicating site characteristics promote infiltration and/or evaporation as such the stormwater runoff mechanism was identified as unlikely to transport MC to off-range areas.

The 2021 assessment concluded MC are unlikely to be transported to off-range areas via air, soil, or surface water/sediment mechanisms. The vertical infiltration of MC through the soil column to shallow groundwater is likely occurring due to the shallowness of the groundwater and the acidity of the soils, which increases MC metals mobility. As such off-range migration of MC through shallow groundwater is possible. However, there is a data gap concerning whether MC are infiltrating through the soil column and/or in the shallow groundwater.

Based on the conclusions for the 2021 periodic Phase I for the Small Arms Complex is recommended for an initial Phase II.

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/