Operational Range Assessment
Joint Base San Antonio – Sam Houston

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 San Antonio (JBSA), part of Air Education Training Command, is comprised of three primary locations: JBSA – Lackland, JBSA-Randolph, and JBSA-Fort Sam Houston. This summary sheet pertains only to JBSA – Sam Houston.

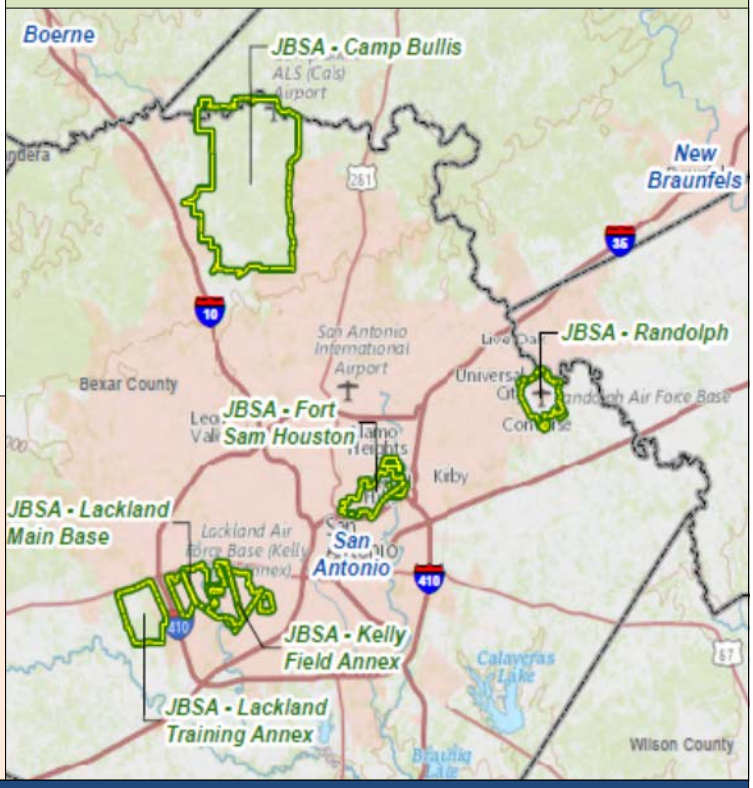
JBSA – Sam Houston (formerly Fort Sam Houston) is located in Bexar County within San Antonio, Texas

ORAP Findings: June 2018 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 current human health or the environment were identified.

Next Steps

JBSA – Sam Houston to include Camp Bullis 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

city limits. JBSA – Sam Houston manages and provides support to Camp Bullis, a geographically separate unit. Camp Bullis, within Bexar and Comal counties, is approximately 17 miles north of the city center.

During implementation of the ORAP at JBSA – Sam Houston one area was verified as eligible and assessed under the USAF ORAP – Camp Bullis. This is the second ORA conducted at Camp Bullis.

It should be noted eight areas located on JBSA – Sam Houston were previously evaluated under the U.S. Army ORAP. All eight areas were categorized under the Army Program as "Unlikely – Five-Year Review" indicating sufficient evidence was obtained to show there are no known releases or source-receptor interactions that could present an unacceptable risk to human health or the environment. The findings, documented in a November 2007 report, indicate ranges categorized as "Unlikely" are required to be re-evaluated at least every five years. However, under the U.S. Air Force Program these eight areas were deemed to be ineligible for an assessment under the ORAP due to no current munitions or energetics use, and limited MC from historical range use. As such these areas will not be further discussed.

Camp Bullis Assessment Overview

The Camp Bullis Training Area Complex, encompassing 26,277.50 acres, currently consists of 83 sub-areas [24 firing ranges and 59 training sites] where munitions expenditures occur or may occur during range-activities. The Training Area Complex boundary encompasses the entire geographically separate unit, except for the nonoperational cantonment area in the southern portion.

Between 1909 and its establishment in 1917, the land which currently composes Camp Bullis was utilized by Fort Sam Houston and Leon Military Reservation for live-fire activities. Since 1917, Camp Bullis has been continuously active and used for training purposes.

Camp Bullis Assessment Overview Continued

In 2008 under the U.S. Army Program, the assessment identified 75 ranges (sub-areas) at the Camp Bullis Training Site. Of these 75 ranges, 24 were categorized as "Unlikely – Five-Year Review" and 51 were categorized as "Inconclusive – Phase II Quantitative Assessment Required." Ranges categorized as "Unlikely" were recommended for a Phase I re-evaluation due to no source or limited source, while ranges categorized as "Inconclusive" were identified for additional data collection to further assess source-receptor interactions.

The 2018 ORA effort, under USAF Program, re-evaluated all sub-areas (ranges) contained within the Camp Bullis Training Area Complex. Sampling efforts focused on confirming an MC source and evaluating the potential for MC to be transported through surface water/sediment and groundwater pathways. Samples were analyzed for explosives, metals, and white phosphorus. Metals (antimony, chromium, copper, lead, and zinc) slightly exceeded reference sample results in sediments; however, no sediment results were above screening levels. No explosive compounds or white phosphorus were detected. Note: one sample result for the explosive compound, tetryl, was rejected after validation. No explosive or white phosphorus were detecting in surface water or groundwater samples. Zinc was detected in three groundwater samples; however, all results were below the most stringent screening value.

Incomplete exposure pathways were identified for air, soil, surface water/sediment, and groundwater to current human and ecological receptors. No risks to human health or the environment currently exist. However, potentially complete exposure pathways were identified for future human and ecological receptors for the groundwater pathway, and for future ecological receptors for the surface water/sediment pathway. These findings are based on continued source loading and the interconnectivity between surface water and groundwater due to the karst geology.

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/