



Operational Range Assessment Vance Air Force Base

Air Force Operational Range Assessment Program

January 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

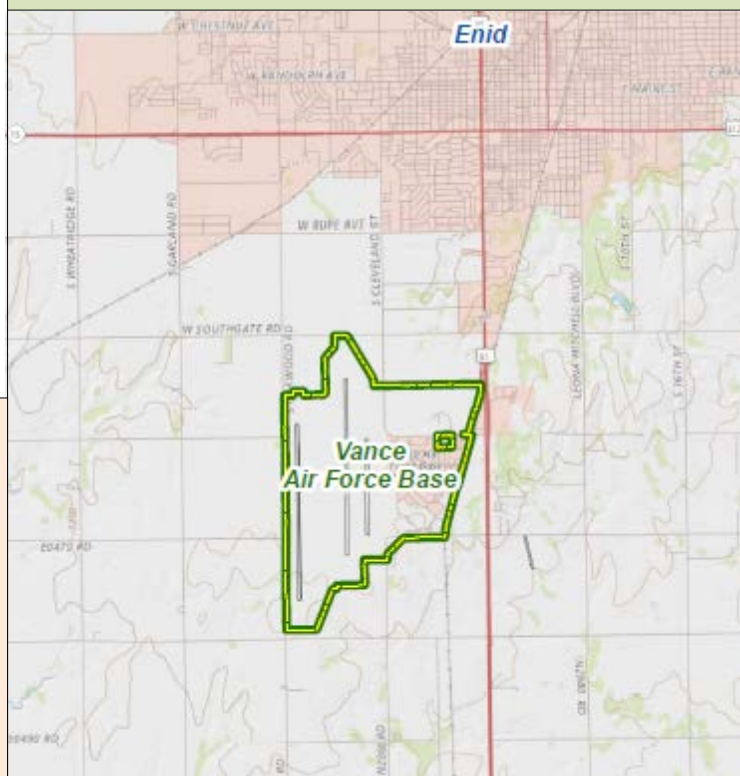
Vance Air Force Base (AFB), part of the Air Education and Training Command (AETC), is located in Garfield County, about 60 miles northwest of Oklahoma City, Oklahoma. Vance AFB also manages a geographically separated unit, Kegelman Auxiliary Field, located in Alfalfa County near the Great Salt Plains Lake within north-central Oklahoma.

ORAP Findings: February 2018 ORA Report

- Migration mechanisms at Vance AFB 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 at Vance AFB.
- No unacceptable risks to human health or the environment were identified for the area evaluated at Vance AFB.

Next Steps

Vance AFB 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

During implementation of the ORAP at Vance AFB, two ranges were verified as eligible for an assessment under the USAF ORAP – a Small Arms Range (SAR) and a Flare Disposition Pit. The Kegelman Auxiliary Field is primarily utilized for pilot touch-and-go training, no training activities involving the use of munitions or other ordnance was identified.

The following summarizes USAF ORAP efforts for the SAR only. The newly identified area will be assessed during the next schedule ORA at Vance AFB. This is the second ORA at the SAR.

SAR Assessment Overview

The SAR, encompassing 0.26 acres, is located in the southeastern portion of Vance AFB. It is a fully contained outdoor range with a covered firing line, concrete range floor, overhead baffles with an overlying roof, concrete sidewalls, and steel bullet trap. The SAR is currently used for training approximately three to four times a week by the USAF; however, the local police department historically used the range. Lead rounds were historically used; but by 2014 Simunition® and frangible rounds accounted for all munitions expenditures.

Based on review of historical aerials, the SAR appears to have been constructed as early as 1957 with operations beginning in 1961. The SAR was originally constructed as an open-air range with a three-sided earthen berm. The range has been modified over the years, with the latest renovations occurring in 2009 to include the construction of concrete retaining walls near the base of the three-sided earthen berm.

It should be noted, the range boundary at the time of the prior assessment included the SAR and three-sided historic berm. Although a chain-link security fence secures 1.6 acres of land surrounding the SAR and encompasses the former berms, the most recent assessment indicates the boundary of the SAR was reduced to only encompass the fully contained portion

SAR Assessment Overview Continued

of the SAR. That is the SAR boundary is currently defined by the range's concrete walls and bullet trap system. As such the former three-sided earthen berm is now deemed as located off-range.

The 2012 Phase 1 identified the former impact berm and to a lesser extent the range floor as sources. MC transport from the historical berm to off-range locations was found possible via overland flow in surface water and infiltration to groundwater. Although only the groundwater migration route was determined to be potentially complete, the assessment recommended a Phase 2 be conducted to further investigation the potential for MC to be transported in surface and ground water. Note: The 2012 ORA, identified the SAR as having a footprint of approximately 0.28 acres of land. But as the historic berm, although no longer used, remains in place was deemed to be encompassed within the operational range area.

The ORA completed in 2017 identified the reported boundary has reduced to only encompass the fully contained portion of the SAR. As the three-sided historic berm is no longer used as a munitions backstop and is not included within the operational range area; it was not included in the 2017 assessment of the SAR. Upon Air Force concurrence, the recommended Phase 2 effort was reduced in scope to a Phase 1. The ORA identified a potential MC source at the current SAR primarily at the firing line and target/impact areas on the range floor. While a potential source of MC was identified, all possible migration mechanisms were deemed unlikely to transport MC off-range. No potentially complete exposure pathways were found, and as such no risks to human or ecological receptors.

- The 2017 ORA recommended, due to the boundary modification/clarification, that the installation further evaluate the historic three-sided earthen berm under an appropriate program.

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/>