



**U.S. AIR FORCE**

**FINAL**

**OPERATIONAL RANGE ASSESSMENT REPORT  
MCCONNELL AIR FORCE BASE**

**UNITED STATES AIR FORCE  
OPERATIONAL RANGE ASSESSMENT PROGRAM**

**Prepared for:  
McConnell Air Force Base, Kansas  
Air Mobility Command  
and  
Air Force Civil Engineer Center  
Joint Base San Antonio – Lackland, Texas**



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**September 2020**



# Operational Range Assessment *McConnell Air Force Base*

Air Force Operational Range Assessment Program

September 2020

## 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

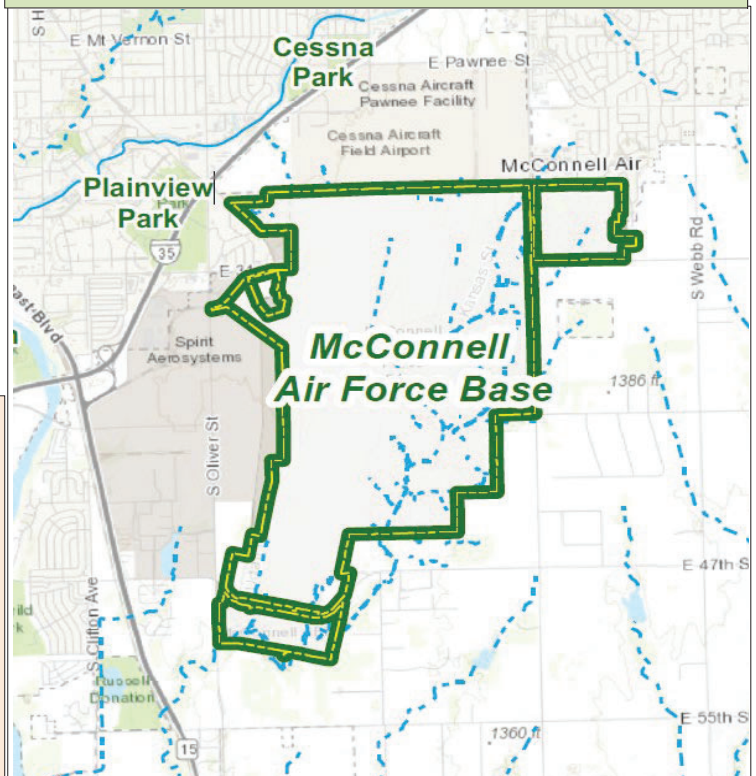
*McConnell AFB is located in Wichita, Kansas, in Sedgwick County, approximately 5 miles southeast of downtown Wichita. McConnell AFB occupies approximately 3,616 acres, of which 2,683 acres is fee-owned federal land and 933 acres is in easement.*

## ORAP Findings: September 2020 ORA Report

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

## Next Steps

McConnell 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 McConnell AFB, four operational areas were verified as eligible and assessed under the USAF ORAP – the Military Operations in Urban Terrain (MOUT) Village Training Area (TA), Explosive Ordnance Disposal (EOD) Proficiency Training Range, Small Arms Range (SAR), and Grenade Launch Range.

The following sections summarize USAF ORAP efforts for the ranges. This is the first ORA conducted at the MOUT Village TA, and the third ORA conducted at the EOD Proficiency Training Range, SAR, and Grenade Launch Range.

### MOUT Village TA Assessment Overview

The MOUT Village TA, constructed in 2004, is located in the southeastern corner of the installation, directly east of the EOD Proficiency Training Range. The range encompasses an approximate 2-acre primary use area with an associated 660-foot-radius safety zone; therefore, the total acreage for the area is 31.5 acres. The MOUT Village TA is used approximately once per month by Security Forces Squadron (SFS) for force-on-force exercises and approximately twice per month by Civil Engineer Squadron (CES) personnel for readiness training, including chemical warfare training.

In 2020, the initial Phase 1 ORA was completed. Limited MC source areas were identified at the MOUT Village TA. Due to the limited availability of MC source, MC were determined to be unlikely to be available for transport via air, soil, surface water/sediment, or groundwater mechanisms. Therefore, no complete exposure pathways or risks were identified for the MOUT Village TA.

### EOD Proficiency Training Range Overview

The EOD Proficiency Training Range encompasses 35.17 acres and is located in the southeastern corner of the installation. The EOD Proficiency Training Range contains two detonation sites, referred to as the Old and “New” detonation sites, and a concrete pad for additional training. The Old Detonation Site was used from approximately 1971 to 2016 for proficiency training and emergency disposals, the New Detonation Site has been used since 2007 for

### EOD Proficiency Training Range Overview (Continued)

proficiency training at a minimum of once per month. The range boundary is defined, in-part, by a security fence encompassing the detonation sites and the New Detonation Site’s 500-ft safety zone.

Prior ORAs were completed in 2010 and 2016 for the Old Detonation Site. The ORAs identified a potential source of MC within soils within the bermed detonation area and near the concrete pad. However, the ORAs determined there were no complete pathways to human or ecological receptors.

In 2017, a Phase 1 ORA update was completed for the New Detonation Site. A potential source of MC was identified within soils within the bermed detonation area. The Phase 1 update determined there were no complete pathways to human or ecological receptors.

In 2020, a periodic Phase 1 ORA was completed. A potential source of was identified within the soil at the detonation areas and to a lesser extent within the safety zones and near the concrete pad. No viable transport mechanisms were identified, and exposure pathways were identified as incomplete to human and ecological receptors.

### SAR Assessment Overview

The SAR is located in the southeastern corner of the installation, east of the main runway and 120 ft west of the installation boundary. The SAR includes a 0.5-acre primary use area and has an associated 100-meter (m) surface danger zone (SDZ) which encompasses 4.86 acres. The area of the SAR has been used for small arms training beginning in the mid-1960s. Small arms were historically fired into an earthen impact berm, which was removed in 1995 and replaced with a bullet trap collection system. The footprint of the former berm is now located within the SDZ of the SAR. The range was historically used for qualification with non-frangible rounds; however, non-frangible rounds have not been used at the range since 2006. The range is currently used approximately four to five times a week.

SAR Assessment Overview (Continued)

Prior ORAs were completed in 2010 and 2016 for the SAR. A potential source of MC was identified at/near the firing line. However, the ORAs determined there were no complete pathways to human or ecological receptors.

In 2020, a periodic Phase 1 ORA was completed. The MC source areas identified for the SAR include the impact/target areas bullet trap, firing points line, and range floor. A legacy source area was identified within the SDZ associated with lead impacts from former use of the earthen impact berm. No viable transport mechanisms were identified, and exposure pathways were identified as incomplete to human and ecological receptors.

Grenade Launch Range Assessment Overview

The Grenade Launch Range, constructed in 1996, is located in the southeastern corner of the installation, about 80-ft southwest of the SAR. The Grenade Launch Range encompasses 23.22- acres, which includes the approximately 600 (m) SDZ.

Grenade Launch Range Assessment Overview (Continued)

The Grenade Launch Range is used approximately four to five times per year for training with practice 40-millimeter grenades.

Prior ORAs were completed in 2010 and 2016. A potential source of MC was identified within soils near firing points and targets. The 2010 and 2016 ORAs determined there were no complete pathways to human or ecological receptors.

In 2020, a periodic Phase 1 ORA was completed. Limited MC source areas were identified at the Grenade Launch Range due to the types of munitions used and the frequency of training. Due to the limited availability of MC source, MC are unlikely to be available for transport via air, soil, surface water/sediment, or groundwater mechanisms. Therefore, no complete exposure pathways or risks were identified for the Grenade Launch Range.

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/>