Operational Range Assessment
Mansfield Lahm Air National Guard

Air Force Operational Range Assessment Program December 2018

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

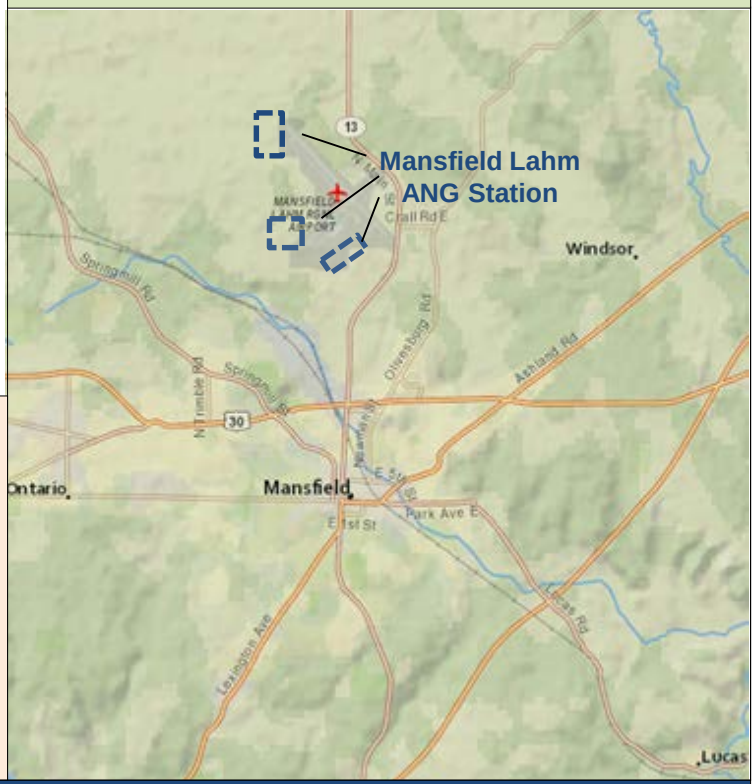
Mansfield Lahm Air National Guard (ANG) Station is located in north-central Ohio approximately 70 miles southwest of Cleveland. The installation is comprised of three discrete parcels leased by the ANG from the City of Mansfield and the State of Ohio. Mansfield Lahm ANG also manages a Geographical Separated Unit, Camp Perry ANG Station, at the Camp Perry Joint Training Center in Port Clinton, Ohio.

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 human health or the environment were identified.

Next Steps

Mansfield Lahm ANG Station 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 the implementation of the ORAP at Mansfield Lahm ANG, one range was assessed – a Small Arms Range (SAR). Mansfield Lahm ANG has three other operational areas deemed ineligible for assessment under the USAF ORAP: a Drop Zone; Rapid Engineer Deployable Heavy Operational Repair Squadron Engineers (RED HORSE) Detachment; and Camp Perry ANG Station. Training activities at these areas were confirmed to not involve munitions, explosives, or other ordnance use.

The following summarizes USAF ORAP efforts for the SAR. This is the fourth ORA conducted at the SAR.

SAR Assessment Overview

The SAR, an open-air range, encompasses a primary use area of approximately 2 acres. It sits in a large depression, effectively giving the SAR berms. The tops of the impact berm and side berms are level with the surrounding land.

A memorandum indicates that the ANG began using the SAR in 1964, which corresponds with a letter dated 2 November 1964 from the City of Mansfield granting permission to the ANG to alter the land for use of a SAR. Since 1964, no legal document between the ANG and the City of Mansfield has been negotiated. A draft lease for the SAR was developed in 1999 but was never signed.

Joint use of the SAR by the ANG and the City of Mansfield lasted through the 1970s. The ANG has used the range exclusively since the 1980s. Prior to 2017, the range was used approximately two times per month for weapons qualification. The SAR is currently used a few days per year for short notice deployments only. A variety of ammunition is authorized for use at the SAR; however, only frangible and non-lethal rounds have been used since 2012.

An initial ORA Phase I was completed in 2009. The impact berm was identified as a possible source of metals; and leaching to groundwater a possible off-

SAR Assessment Overview Continued

range transport route. The ORA recommended further evaluation, a Phase II, be conducted to assess the potentially complete groundwater exposure pathway.

The ORA Phase II was completed in late 2009. Soil and groundwater sampling was conducted. Samples were analyzed for MC metals. Metals were not detected in groundwater at concentrations above their respective screening criteria. The ORA Phase II effort concluded, MC within the earthen impact berm were not leaching to shallow groundwater and no groundwater exposure pathway to human receptors existed. No ecological receptors were evaluated during this assessment.

The periodic ORA Phase II was completed in 2014. The assessment confirmed an MC source still present and verified the only likely MC migration mechanisms was leaching to groundwater. Additionally, this ORA effort identified the potential for groundwater to discharge as surface water. Soil samples were collected for metal analysis. Sampling results indicate that surface soil outside of the SAR contains metals above human and ecological screening values. However, the presence of metals could not be definitively attributed to current or historic use of the SAR. The 2014 effort determined no obvious release could be inferred, and therefore the groundwater exposure pathway incomplete for human and ecological receptors.

The 2018 ORA Phase II verified MC likely present in soils; and the only potential transport mechanism is infiltration to shallow groundwater which is suspected to daylight to surface waters. Groundwater samples were collected and analyzed for dissolved and total MC metals. Metals were detected at concentrations below or comparable to background with the exception of iron. Iron was detected in cross-gradient groundwater samples above background. However, these elevated concentrations are likely indicative of naturally occurring conditions given soils are composed mostly of iron-rich clays. Based on data, all source-receptor interactions and exposure pathways were deemed incomplete for human and ecological receptors.

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/