Operational Range Assessment
JBER – Elmendorf

Air Force Operational Range Assessment Program January 2022

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 (MC) 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 I and Quantitative Assessment, Phase II (if required).

- A Qualitative Assessment, Phase I, encompasses records review, interviews, and a visual survey.
- A Quantitative Assessment, Phase II, encompasses records review, interviews, visual survey, and environmental media sampling.

Installation Overview

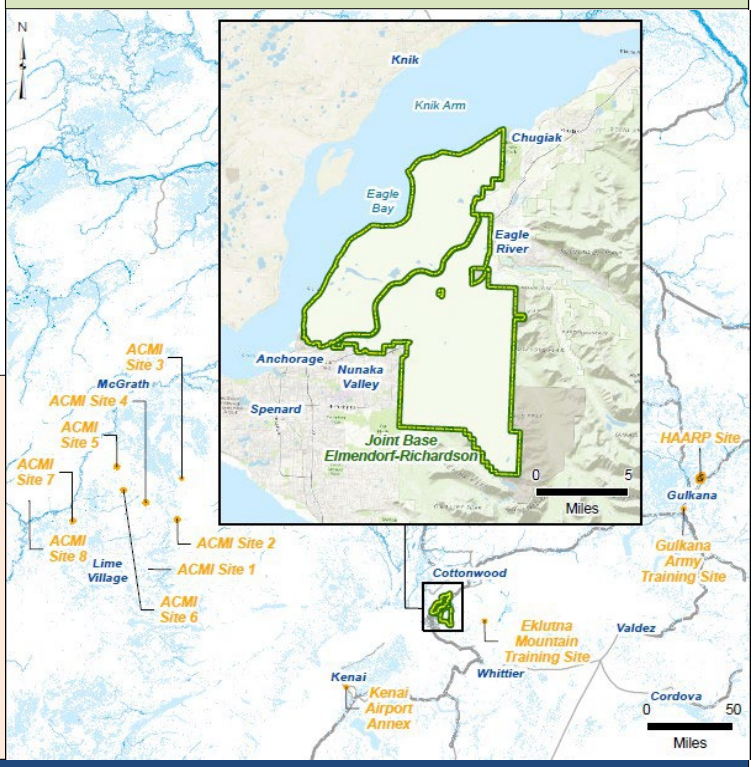
Joint Base Elmendorf-Richardson (JBER) encompasses 73,031.43 acres and is located within Anchorage, Alaska in south-central Alaska. JBER manages 12 Geographically Separated Units (GSUs): Eklutna Mountain Glacier Training Site, Gulkana Army Training Site, Kenai Airport Annex, Air Combat Maneuver Instrument (ACMI) Sites 1 – 8, and High Frequency Active Auroral Research Program (HAARP) Site.

ORAP Findings: January 2022 ORA Report

- Munitions constituents (MC) including metals and explosives may be transported via surface water/sediment.
- No actual or substantial threat of an off-range MC release exists at JBER – Elmendorf.
- No unacceptable risks to off-range receptors (human or the environment) were identified.

Next Steps

JBER – Elmendorf 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

JBER, which is part of the Pacific Air Forces (PACAF), was formed as part of the 2005 Base Realignment and Closure which called for the realignment of Elmendorf Air Force Base (AFB) and Fort Richardson into a single installation. The two installations were officially merged in 2010 as JBER.

During the implementation of the Air Force ORAP at JBER – Elmendorf, two areas were determined to be eligible and assessed under the USAF ORAP: the Explosive Ordnance Disposal (EOD) Range and the Practice Grenade Range (GR). An indoor small arms range also exists at JBER – Elmendorf; however, indoor ranges are not assessed under the ORAP per DoD policy.

The EOD Range and the Practice GR previously received two ORAs each as individual range areas. The latest assessment effort evaluated these two operational areas as a virtual range complex – the EOD Range/ Practice GR Complex.

Previous Assessment – 2010

A combined Phase I/II (qualitative and quantitative) assessment was conducted at the EOD Range. Aerial photos of JBER – Elmendorf (Elmendorf AFB) indicated the EOD Range was constructed sometime between 1950 and 1964. During Phase II efforts, soil samples were collected for MC (metals and explosives). Based on sample results, soils were deemed a source media; however, no substantial or actual threat of an off-range MC release was identified.

A combined Phase I/II (qualitative and quantitative) assessment was conducted at the Practice GR. Data indicates practice grenade training has taken place since 1999. Only 40 mm, M781 practice grenade rounds are used at the range. As part of the Phase II effort, soil samples for MC (metals and explosives) were collected. Based on results, no substantial or actual threat of an off-range MC release identified.

Previous Assessment – 2015

A combined Phase I/II update was conducted at the EOD Range. Based on analytical results, an MC source in soils was verified. Although MC is present in on-range media, the transport of MC to off-range areas was determined to be unlikely. No threat of an off-range MC release was identified and as such no risks to receptors.

The combined Phase I/II assessment at the Practice GR determined no change in conditions that would affect prior ORA findings. Analytical results confirmed MC in on-range soils; however, the assessment determined MC is unlikely to migrate. Based on the information collected for the Practice GR, there is no potential off-release of MC and no risks to receptors.

Assessment Overview – 2022

The EOD Range/Practice GR Complex, within the northern portion of JBER-Elmendorf, encompasses 229.54 non-overlapping acres. Training at the EOD Range consists of emergency destructions on an as-needed basis and proficiency training approximately twice per month. Training at the Practice GR is conducted quarterly.

The periodic assessment was completed at the EOD Range/Practice GR Complex. Surface and subsurface soil samples were collected from source areas and the associated buffer zone to evaluate the soil to groundwater transport pathway via modeling. Surface water and sediment samples were also collected as shallow groundwater potentially daylights to nearby creeks. Samples were analyzed for metals, explosives, and perchlorate. The Phase II concluded that MC have the potential to migrate to underlying groundwater. However, it is unlikely that MC are migrating within groundwater to off-range areas. No potential risks were identified for human or ecological receptors. The virtual complex was recommended for continued monitoring under the next periodic ORA.

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/