



Operational Range Assessment

JBER – Richardson

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

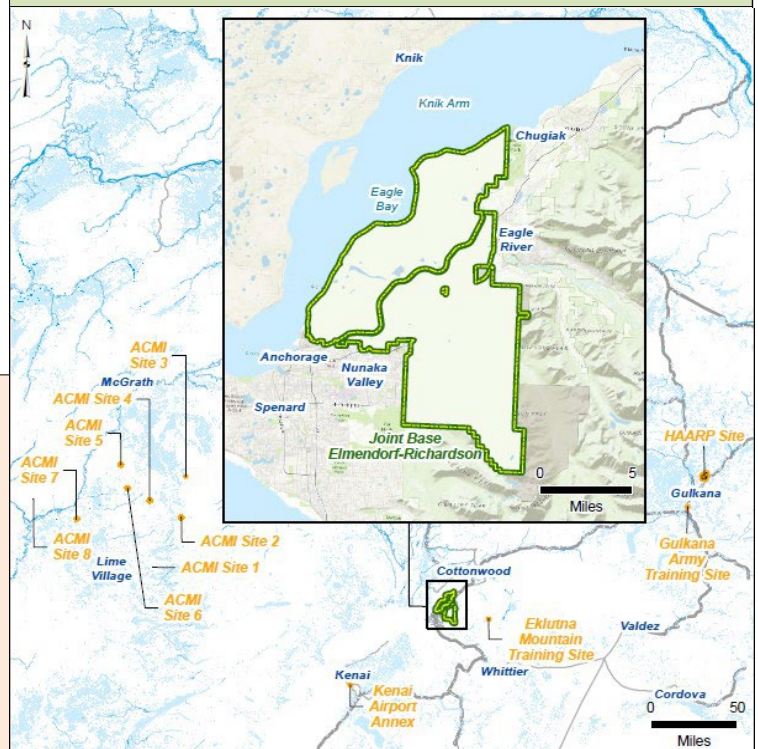
Joint Base Elmendorf-Richardson (JBER) encompasses 73,031.43 acres and is located within Anchorage, Alaska in south-central Alaska. JBER manages 12 Geographically Separated Units (GSUs): Eklutna Mountain Glacier Training Site, Gulkana Army Training Site, Kenai Airport Annex, Air Combat Maneuver Instrument (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 – Richardson.
- No unacceptable risks to off-range receptors (human or the environment) were identified.

Next Steps

JBER – Richardson 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.

Previous Assessment – 2008

In 2008 JBER-Richardson (Fort Richardson) as well as sub-installations (GSUs) Eklutna Training Site and the Gulkana Training Site were assessed, and report(s) finalized under the Army's ORAP. Under the Army ORAP, operational ranges where no munitions or where only small caliber blanks have been utilized, are categorized as Unlikely. Operational ranges where existing information is insufficient, or the information indicates the potential for a source-receptor interaction are categorized as Inconclusive. Ranges categorized as Unlikely are identified to be re-evaluated at least every five years. Areas categorized as Inconclusive are identified for additional evaluation via sampling.

The Eklutna Training Site encompassing roughly 32.98 acres is located northeast of Anchorage, Alaska. The site, located within the Chugach State Park System, is open to recreational users including hunters. The primary mission of the area is to provide glacier and mountaineering training. Historical records review and interviews indicated that the site had never been used for training involving military munitions. As training activities did not involve the use of munitions, no potential source of MC was identified. Therefore, potential off-range migration pathways and potential off-range human and ecological receptors were not evaluated, and the site categorized as Unlikely. The site was recommended for periodic review to confirm use – training activities do not involve munitions.

The Gulkana Training Site identified as encompassing approximately 40.9 areas located in southeast Fairbanks, Alaska. Training activities consisted of glacial travel, ice climbing, rescue techniques, and glacial warfare. The assessment indicated the site had never been used for training involving military munitions. Due to training activities, current or

Previous Assessment – 2008 Continued

historical, not having involved the use of military munitions, no potential MC source was identified. Therefore, potential off-range migration pathways and potential off-range human and ecological receptors were not evaluated, and the site categorized as Unlikely. The site was recommended for periodic review to confirm use – training activities do not involve military munitions.

Fort Richardson, encompassing approximately 61,214 acres in south-central Alaska, was identified as having 155 operational ranges covering 56,122 acres of the installation. Training activities include the use of maneuver and training areas and numerous live-fire ranges with firing points and an impact area. MC source areas were identified based on current and historical use of military munitions. In general, MC from primary source areas were found to potentially impact soil, surface water / sediment, and shallow groundwater. Given current and historical military munitions usage the assessment reviewed potential migration pathways and possible human and/or ecological receptors. Seven sites, encompassing roughly 17,373 acres, were identified as having the potential for off-range MC migration that may affect human and ecological receptors and categorized as Inconclusive. The remaining 148 sites, roughly 37,749 acres, were categorized as Unlikely. The operational areas identified as Unlikely were recommended for periodic review while the Inconclusive sites were recommended for further evaluation.

Previous Assessment – 2015

In 2015, under the Air Force ORAP, JBER – Richardson to include the Eklutna Training Site were re-evaluated. During implementation of the Air Force ORAP, to align with prior recommendations, Richardson operational ranges were grouped into two areas a northern complex and a southern complex. The northern complex encompassed ranges categorized as Unlikely, while the southern complex primarily encompassed the ranges categorized as Inconclusive.

The Eklutna Training Site, encompassing approximately 33 acres, was re-evaluated. A review of available records as well as interviews with personnel was conducted. Range operations and site conditions appeared to be consistent with those observed during the 2008 assessment.

Previous Assessment – 2015 Continued

No munitions have been, or are currently used, at the Eklutna Training Site. As such there is no potential MC source and no threat of an off-range MC release. The area was identified for periodic re-evaluation to verify training use.

JBER – Richardson, northern range complex, was evaluated to determine if conditions (e.g., range operations or site conditions) changed. The Air Force Phase I update determined that there is a source of MC from current as well as historical use of small, medium, and large caliber live-fire and practice munitions. Based on a likely MC source, it was determined that MC could migrate from soil source media to surface water and groundwater. Based on information collected during the 2015 assessment, there is no known or suspected off-range MC release and no unacceptable risks to receptors (human or ecological). The northern range complex was recommended for a periodic Phase I re-evaluation.

JBER – Richardson, southern range complex, was evaluated to collect new data via sampling. The purpose of the Phase II sampling was to determine if MC are migrating off-range, and if so, do levels pose an unacceptable risk to receptors. During the assessment, surface water and sediment samples were collected from creeks located downstream of MC source areas, and a groundwater sample was collected from a production well downgradient of the southern range complex. There were no detections of explosives, white phosphorous, or perchlorate in surface water, sediment or groundwater. There were low-level detections of metals; however, the detections were orders of magnitudes below screening criteria. While there were low-level detections of MC (metals), based on analytical results, it is unlikely metals are migrating off-range. The information collected during the Phase II determined here are no complete exposure pathways and no unacceptable risks to receptors (human or ecological). The southern range complex was recommended for continued monitoring under a periodic Phase II.

Assessment Overview – 2022

In 2022 JBER – Richardson as well as GSUs (e.g., Eklutna Training Site and Gulkana Training Site) were re-evaluated. The Eklutna Training Site was identified as not currently active. Records review and interviews confirmed the site had never been used for training involving munitions. As training activities did not involve the use of munitions, no potential source of MC was identified. The Gulkana Training Site was re-evaluated and verified historical training activities never involved military munitions. As such no potential MC source was identified. These training sites shall be scheduled, as appropriate, for a periodic review.

The 2022 assessment at JBER – Richardson evaluated the operational ranges, henceforth referred to collectively as the Richardson Maneuver Area (RMA). Although the assessment continued to discuss ranges within the RMA as a northern range complex and a southern range complex, the RMA was evaluated in its entirety. Training at the RMA (northern and southern portions) were confirmed to involve multiple types of small, medium, and large caliber ammunition as well as pyrotechnics and obscurants. An initial Phase II was conducted on the northern complex and a periodic Phase II on the southern complex. Phase II efforts included the collection of surface water and sediment samples to evaluate MC transport from soils via runoff, infiltration, and discharge. Samples were analyzed for MC of potential concern: metals, explosives, and perchlorate.

No MC was detected in surface water; however, MC (metals and explosives) were in detected sediment. The Phase II concluded MC were potentially migrating towards off-range areas via surface water and groundwater. However, no potential unacceptable risks to human receptors or ecological receptors were identified. Based on the Phase II, no off-range MC release or substantial threat of an off-range MC release exists, and as such no source-receptor interactions identified. JBER – Richardson operational ranges, the RMA, was recommended for continued monitoring during the next periodic Phase II.

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/>