The remedy can involve engineered solutions, which are often followed by long-term management and monitoring.

The MMRP SI, which is the current planned work for the former Kingman Ground-to-Ground Gunnery Range, will complete the PA and SI phases. The primary goal of the MMRP SI is to determine—

- Whether an RI/FS is required at the site;
- Whether an immediate response is needed; or
- Whether the site qualifies for no further action.

The secondary goals of the SI are to collect data and complete the MRS Prioritization Protocol for each MRS. DOD addresses MRSs posing the highest relative risk to humans or the environment prior to addressing ones of lower relative risk.

Project Activities

In April 1993, the Corps completed an INPR site visit at the former Kingman Ground-to-Ground Gunnery Range. In addition, the Corps completed the Archive Search Report (ASR) for the former Kingman Ground-to-Ground Gunnery Range in April 1996. The INPR and ASR encompass the PA phase for the former range.

As part of the Corps' inspection process, an MMRP SI will be conducted at the five MRSs beginning in the Spring of 2010. At this time, the Corps is pursuing rights-of-entry permission from current property owners.

During the SI process, each MRS will be evaluated for the presence of military munitions. Soil samples will be collected and analyzed for selected metals, including antimony, copper, lead, and zinc. Soil samples at select MRSs will be analyzed for polycyclic aromatic hydrocarbons, a degradation product of the clay pigeons that were used at the skeet ranges. The SI results will be used to determine the Corps' next steps.

The results also will be used to establish the MRSs' Hazard Ranking System score for the U.S. Environmental Protection Agency and the MRS Prioritization Protocol.

Public Involvement

Public involvement is an important part of the Corps' FUDS program. To better involve the local community in the Corps' decision-making process, the Los Angeles District will release its MMRP SI report to the community.

The Corps will be holding a public information session in Kingman, Arizona, to present the results of its historical research and to discuss future work at the former Kingman Ground-to-Ground Gunnery Range. The session will be held on February 16, 2010 from 5 p.m. to 8 p.m. at the location listed below.

La Senita Elementary School
Cafeteria/Gym
3175 Gordon Drive
Kingman, AZ

For more information, please contact the Arizona local office of the U.S. Army Corps of Engineers, Los Angeles District Public Affairs Office at:

(602) 640-2015
Extension 285

Below are tips on how to respond if you suspect that you have encountered military munitions at the former Kingman Ground-to-Ground Gunnery Range.

BE SAFE…FOLLOW THE "3 Rs"

Recognize — you may have encountered a munition.

Retreat — from the munition. Do not touch or disturb it, but move away carefully, walking out the same way you entered the area.

Report — what you saw and where you saw it to local law enforcement (call 911).

FACT SHEET

The purpose of this fact sheet is to inform community members about the U.S. Government's current and historical activities at the former Kingman Ground-to-Ground Gunnery Range located in Kingman, Arizona, and to provide an overview of the process for conducting a site inspection.

Overview

Like many communities throughout the West and Southwest, Kingman, Arizona, encompasses former military range and training lands that have been returned to civilian use. This fact sheet provides community members with the background information on the former Kingman Ground-to-Ground Gunnery Range they need to understand the investigative activities that the U.S. Army Corp of Engineers (the Corps) is planning for Spring 2010.

The Corps is the Department of Defense (DOD) organization that is responsible for environmental restoration of properties that were formerly owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense. Such properties are known as Formerly Used Defense Sites (FUDS).

Former Kingman Ground-to-Ground Gunnery Range Boundary

Site Location

The former Kingman Ground-to-Ground Gunnery Range is a FUDS that encompasses an estimated 20,000 acres on the north side of Kingman, Arizona, in Mohave County. The southern boundary of the site overlaps the Kingman city limits, and then it extends for 10 miles to the northeast.

Currently, the former range is owned by the City of Kingman, Mohave County, the State of Arizona, and numerous private parties. Most of the former range is used for grazing and ranching operations; however, about 25 percent of the site is now in residential and commercial use and continued development is expected.

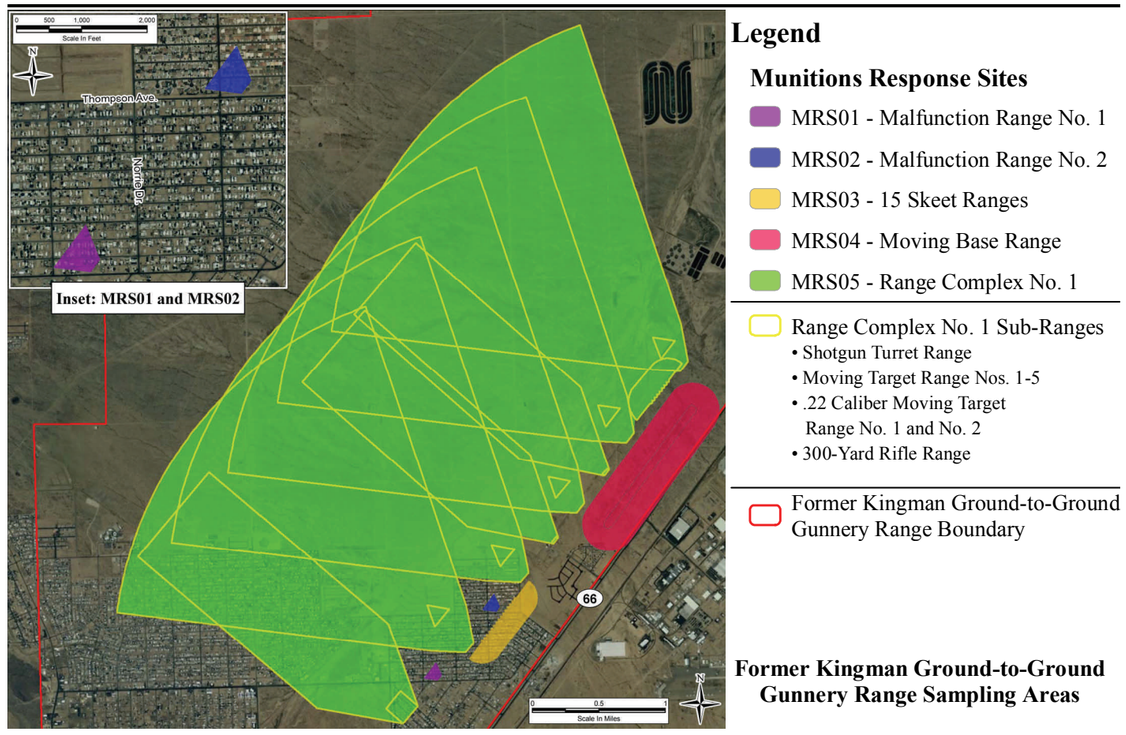
Site History

In August 1942, the Kingman Ground-to-Ground Gunnery Range was established as part of an Army Air Forces Flexible Gunnery School under the jurisdiction of the West Coast Flying Training Command. The flexible gunnery training began in January 1943 and specialized in training gunners to use the defensive turrets and armaments of the B-17 bomber. Exercises included small arms training, firing at moving targets from both stationary and moving bases, and weapons malfunction training.

Within the boundary of the range, the DOD constructed approximately 89 buildings in an area referred to as the Ordnance Magazine and Target Range. In addition to this area, the range consisted of five ground-to-ground moving target ranges, two .22 caliber bullet moving target ranges with 20 targets per range, 15 skeet ranges, one 50-trap moving base range, a shotgun turret range, and two malfunction ranges.

Shotgun Turret Training

A typical training program consisted of six weeks of classroom and field training. The first two weeks were dedicated to orientation lectures



Former Kingman Ground-to-Ground Gunnery Range Sampling Areas

and classroom instruction, which occurred at the former Kingman Army Airfield located southeast of the former Kingman Ground-to-Ground Gunnery Range. The third and fourth weeks consisted of gunnery training. Trainees completed their ground-to-ground combat course work on the moving target range firing shoulder-fired and gun turret systems using .30 caliber and .50 caliber bullets, and shotgun small arms ammunition. Gunnery students fired at "jeep-type" moving targets from a common firing line. Students also learned to operate the electrically powered turrets while firing at clay pigeons released from 40-foot towers.

The fifth and sixth weeks were devoted to air firing at the former Kingman Air-to-Air Gunnery Range, which was located north of the former Ground-to-Ground Gunnery Range.

The weapons that were used at the former Kingman Ground-to-Ground Gunnery Range are categorized as small arms, which include rifles, automatic rifles, pistols, machine guns, and shot guns. The ammunition that was used includes .22 caliber, .30 caliber, .45 caliber, and .50 caliber bullets for handguns, rifles, and machine guns. Separate ammunition was used for shotguns.

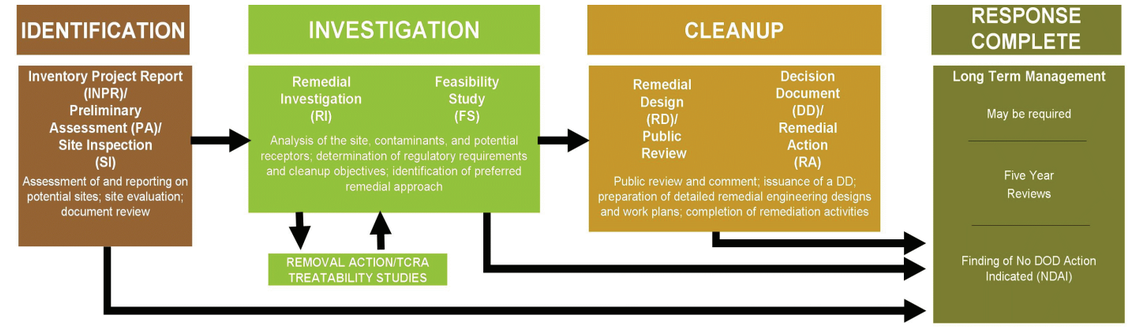
On November 15, 1945, the range was declared surplus to the needs of the military, and custody of the range was assumed by the Department of the Interior (DOI) on April 10, 1946. Between June 1946 and August 1947, DOI returned all land to the original landowners.

Historical Investigations

In February 1996, the U.S. Army Engineering and Support Center in Huntsville, Alabama, examined the former Kingman Ground-to-Ground Gunnery Range for the existence and use of military munitions. The Corps conducted a site survey that confirmed the presence of small arm ammunitions but determined that there was no evidence of high-explosive munitions at the range.

During the survey, the Corps identified five munitions-related areas for further investigation. The five Munitions Response Sites (MRS) are as follows:

- MRS01 - Malfunction Range No. 1;
- MRS02 - Malfunction Range No. 2;
- MRS03 - 15 Skeet Ranges;
- MRS04 - Moving Base Range; and



(USACE Environmental Regulation 200-3-1, FUDS Program Policy, May 2004)

The FUDS Process and Remedial Phases

- MRS05 - Range Complex No. 1 (consisting of a shotgun turret range, five moving target ranges, two .22 caliber moving target ranges, and a 300-yard rifle range).

In November 2004, the Corps assigned the five MRSs a Risk Assessment Code (RAC) score of 5. RAC scores are assigned on a scale from 1 to 5, with 1 being the most hazardous. The scores are determined primarily by the types of munitions known or suspected to have been used at each MRS.

As part of the FUDS process, the Corps evaluates the *Hazard Severity* and *Hazard Probability* to determine an overall risk assessment for each site. This information is then used by the Corps, in concurrence with state and federal regulators, to prioritize projects so that those sites that pose the greatest risk to human health and/or the environment are addressed first.

FUDS Military Munitions Response Program

The Corps is the executing agent for the FUDS Military Munitions Response Program (MMRP), which DOD established in 2001 to address FUDS that have military munitions. The former Kingman Ground-to-Ground Gunnery Range is one of 765 sites nationwide that have been identified as having military munitions. MMRP site inspections (SI) have been completed at 479 of the 765 sites. The FUDS MMRP follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process and includes the following five phases:

1. Inventory: The Corps verifies that a property is eligible as a FUDS and evaluates the potential issues or concerns at the site. The findings of this phase are presented in an Inventory Project Report, or INPR.

2. Preliminary Assessment (PA): The PA phase consists of collecting readily available property information and conducting a property visit. The PA identifies potential projects within the FUDS and whether the projects qualify for the FUDS program. In addition, the PA results are used to assess the need for cleanup and to estimate the severity of the issue.

3. MMRP SI: The SI phase involves visiting the property to confirm the data that was collected during the PA. Additional site-specific data is collected, and limited environmental investigations are performed to confirm the presence of military munitions.

4. Remedial Investigation (RI)/Feasibility Study (FS): This phase includes conducting an RI to characterize the nature and threat posed by the military munitions identified during the SI and gathering data necessary to assess the extent to which these pose a threat to human health, safety, or the environment. Then, an FS is conducted to ensure that appropriate remedial alternatives are developed and evaluated, and an appropriate remedy is selected.

5. Response: This phase consists of developing the engineering design and doing what is necessary to remove military munitions. Response plans, along with supporting analyses, are made available for public comment and review. Following this review, a remedy is selected.