

Formerly Used Defense Sites (FUDS) Department of Defense (DoD) Sites

Boundaries:

There are over 200 eligible properties known as [Formerly Used Defense Sites](#) (FUDS) located throughout Arizona. For pdf maps and site information on individual FUDS in Arizona follow the link [DEP ARC FY09 - MMRP Site Inventory](#) and select Arizona from the DERP 2009 Report to Congress web page. The [Defense Environmental Program](#) also maintains a Geographical Information Systems (GIS) webpage for Arizona. (Click Arizona and select FUDS and refresh map, then use the select tool to highlight individual FUDS.)

Site Status Update:

The [Military Munitions Response Program](#) (MMRP) is currently working on completing Site Inspections (SIs) at FUDS munitions sites which involves qualitative reconnaissance and munitions constituents sampling. The goal is to gather updated site information and to score the sites for prioritization. Current ongoing FUDS Installation Restoration (IR) projects include the repairs to the asphalt [cap](#) at the *Kingman Airport* (Former Kingman Army Airfield) [dross](#) site.



**Camp Bouse Tank
Used to Fire Mortars**



**Kingman Gunnery Range
Moving Target Base**

The Kingman Gunnery Range investigation began in late 2009 which will involve sampling primarily for [lead](#) and a site walk at the small arms ranges, [berms](#), malfunction range and former moving target base. The former skeet ranges will also be investigated and sampled for [petroleum aromatic hydrocarbons](#). An Archive Search Report for the Range was completed in 1996 and updated in 2006. The [U.S. Army Corps of Engineers](#) (USACE) will perform incremental sampling as part of the site investigation.

Community Involvement Activities:

A stakeholders group has met several times since July 2001 with the Arizona Department of Environmental Quality (ADEQ), USACE and the U.S. [Environmental Protection Agency](#) (EPA).

The stakeholder's group includes members of [tribal nations](#), [U.S. Fish and Wildlife Service](#), [U.S. Forest Service](#), [Arizona State Land Department](#), [U.S. Department of the Interior](#), [U.S. Bureau of Land Management](#) and [Pinal County](#). The Annual FUDS Management Action Plan stakeholder's meeting was held on June 22, 2010 at ADEQ and is tentatively scheduled for May 2011.

A public meeting to inform the community of Kingman Gunnery Range site activities was held in February 2010 in Kingman. Another public meeting is tentatively scheduled for 2011 after the results of sampling and the site inspection report are completed.

Site History:

1986: [FUDS](#) refer to real properties that were formerly owned by, leased to, possessed by, or otherwise under the jurisdiction of the Secretary of Defense or the Components prior to October 17, 1986. This includes manufacturing facilities for which real property accountability rested with the DoD but were operated by contractors (Government owned-contractor operated properties).



100 lb Practice Bomb

A large majority of FUDS are from World War II era activities. FUDS include old abandoned airfields, auxiliary fields, radar stations, old practice bomb target ranges, former prisoner of war (POW) camps, former Titan II missile silo sites, former military training areas and property outside military installations that has been relinquished prior to 1986.

2002: There have been more than 300 sites investigated in Arizona for eligibility by the USACE. Many sites were duplicates, still active or otherwise ineligible. The USACE has now determined 206 sites in Arizona to be eligible for cleanup under the Defense Environmental Restoration Program FUDS Program. Through the Arizona Management Action Plan (MAP) prepared by USACE in cooperation with EPA, ADEQ and various stakeholders, 103 properties were determined to have potential projects. A complete inventory of FUDS properties is maintained through the MAP dated September 2002. The FUDS MAP inventory is updated every other year. The MAP inventory document contains a brief description of the FUDS program, a fact sheet on each of the sites and a CD that contains the initial inventory project reports.



Signal Flare found at WBTR #6

Inventory Project Reports have been prepared by the USACE and contain site history, determination of eligibility, site visit summaries and site maps. Investigations into FUDS are ongoing and often involve completing an Archive Search Report to determine the history of the site and identify possible areas of concern.

2003: Past FUDS projects have included the former Kingman Army Airfield, which is now the Kingman Airport. All but a few of the original Kingman Army Airfield buildings have been removed. The property was

formerly used as a support facility for aircraft training and has been redeveloped as an industrial business park. Projects included the treatment of [dross](#) contamination and construction of an asphalt tarmac paved cap. Various fuel oil tanks were removed and soils around former buildings were investigated and determined to warrant no further action. A No Further Action Decision document for the buildings, sewer line and wastewater treatment plant was approved by ADEQ on February 23, 2003. A 30,000 and a 250 gallon reinforced concrete [underground storage tank](#) (UST) were removed in April 2003 at the Hackberry water booster station, and a completion report was approved by ADEQ. In April 2003, an above-ground storage tank was removed from the Tacna Gap Filler Annex and the project was completed with concurrence by ADEQ.

2004: Two underground concrete storage tanks were removed at the *Kingman Gunnery Range* and further characterization and disposal of soils for UST #2 was completed in September.

The Winslow Air Force Station was investigated in 2004 for verification that all of the USTs were removed and no environmental hazards remain.

Removal of two 40 foot high above ground storage tanks at the former [Douglas Army Airfield](#) (now the [Bisbee-Douglas Airport](#) and Prison Complex) was completed in September. The tanks were used to supply aircraft fuel to the Airfield during WWII.

2005: [Williams Field Bomb Target Range #6](#) is a one square mile area that was used for bomb practice in WWII. The site is located 22 miles east of Florence, AZ just south of the Florence-Kelvin Highway. There are 24 similar practice bomb targets located throughout Arizona which were used during WWII that have confirmed 100 pound practice bombs or dummy bomb debris. The USACE completed an ordnance investigation known as an Engineering Evaluation/Cost Analysis to determine further remedial recommendations. A meeting with the stakeholders, public and property owners was held in November 15, 2005 in Florence to discuss the proposed plan of practice bomb surface debris removal and institutional controls. ADEQ requested soil sampling during the removal action.

2005: A kick-off meeting for the former [Sahuarita Air Force Range](#) located in the Town of Sahuarita, southeast of Tucson, was held on September 8, 2005. A site investigation was being conducted under the MMRP for the four practice bomb targets, air to ground, ground to air range, and the landing strip. Twenty to thirty homes have been built within a mile of the north and south bomb targets. Limited surface water and soil samples were taken at each of the ranges for contamination by munitions constituents.



Kingman Asphalt Dross Cap 2004

2005: The POW Camp Eloy was investigated for potential soil contamination. A water tower was dismantled for safety reasons along with filling up a swimming pool used during WWII. ADEQ issued a concurrence letter that the project was complete in January 2005.

2006: An asphalt cap was constructed at the Kingman Airport over several trenches containing dross material with elevated levels of arsenic, cadmium and other metals. ADEQ discussed requirements for a [Declaration of Environmental Use Restriction](#) (DEUR), and maintenance plans with USACE and the Kingman Airport Authority. ADEQ conducted annual inspections of the cap and negotiated with USACE to repair several defects from the cap installation.

2007: The MMRP completed ten site investigations (Sis) at FUDS munitions sites including former Sahuarita Air Force Range, Williams Bomb Target Practice Ranges #4, 9, 10, Palo Alto Precision Bomb Target #3, Laguna Maneuver Areas #3, 5, 6 and Camp Horn. The surface removal of munitions debris from 100-pound practice bombs at [Williams Field Bomb Target Range #6](#) near Florence was completed in.

2008: Eleven MMRP munitions SIs were completed this year including Laguna Maneuver Area #7, Williams Bomb Target Practice Ranges #2, 5, 7, 12, 13, 14, and 22, Luke Auxiliary Field #3 in Surprise, Whipple Barracks Target Range, and Camp Bouse. SIs were begun for the [Kofa National Wildlife Refuge](#) and Willcox Dry Lake Bed parcels.

2009: SIs were started at the following sites: Yuma Test Branch; Task Force Furnace; Palo Alto Precision Bomb Target Ranges #4, 5, and 6; and Kingman Ground to Ground Gunnery Range. The Kingman Dross Site completed the investigation report for the Asphalt Repair and Geophysical Survey.

2010: A remedial investigation involving technology demonstrations began with a kick off meeting and site tours in November for former Williams Practice Bomb Target Ranges #4, 9, 10 and 12.

Several munitions SIs at former military training areas were completed by the U.S. Army Corps of Engineers. SIs involve information gathering, a site visit and limited sampling for munitions constituents. The goal of the SI is to gather updated site information, score the sites for prioritization and recommend further investigation in the form of a remedial investigation or recommend no further action.

2010 Status

Camp Hyder- SI completed.
Kofa National Wildlife Refuge Areas #1,4-SI completed.
Yuma Test Branch- SI completed.
Muggins Mountain-SI completed.
Laguna Maneuver Areas #1, 4, and 8 to 11-SI completed.

The SI process was initiated in 2010 at:
The former Kingman Army Airfield Small Arms Range
Kingman Air to Air Gunnery Range
Kingman Ground to Ground Gunnery Range
Ajo Army Airfield, Coolidge Army Airfield
Dateland Auxiliary Field
Douglas Army Airfield
Flagstaff Target Range
Hereford Army Airfield

Luke Range “D” near Yuma
Mohave Maneuver Area “C”
Welton Gunnery Range
Wilmot Target Range
Yucca Air to Air Gunnery Range
Yucca Auxiliary Operating Base.

For pdf maps and site information on individual FUDS follow the link [DEP ARC FY09 - MMRP Site Inventory](#) and select Arizona from the DERP 2009 Report to Congress web page.

Contaminants:

Contaminants in soil from UST spills include [petroleum hydrocarbons](#) and [benzene](#). Dross contamination at the Kingman Airport site includes [arsenic](#), [cadmium](#), [lead](#) and other heavy metals in soil. There is a possibility of contamination from [unexploded ordnance](#). Contaminants of concern at the site may change as new data become available.

Public Health Impacts:

There is no known risk to human health from these sites. Ordnance debris may pose an explosive safety hazard. Discovery of ordnance should be reported to the local law enforcement authorities and left untouched. For UXO safety and educational materials, go to the DENIX UXO Safety Home Page at [DENIX - Unexploded Ordnance \(UXO\) Safety](#)

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*In Arizona, but outside the Phoenix area, call toll-free at (800) 234-5677.

Information Repository:

Information on the FUDS programs is also available at the Defense Environmental Network and Information exchange (DENIX) website <http://www.denix.osd.mil/portal/page/portal/denix>.

Interested parties can review site information at the ADEQ Main Office located at 1110 W. Washington in Phoenix. Please contact (602) 771-4380 or (800) 234-5677 to schedule an appointment with 24-hour notice to review these documents. Once all documents requested have been collected, you will be contacted for a review Monday through Friday from 8:30 a.m. to 4:30 p.m. at the ADEQ Records Management Center, 1110 W. Washington Street in Phoenix, AZ.