



Environmental Conditions at Karshi Khanabad (K-2) Air Base, Uzbekistan Information for Service Members and Veterans

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Replaces previous DHCC unnumbered Fact Sheet

American Service members began working at K-2 (Stronghold Freedom) in October 2001, and the air base was vacated in November 2005. K-2 was located on a portion of an old, Soviet-era air base in Uzbekistan. It was a very active site supporting Operation Enduring Freedom. Thousands of Service members (mostly Army and Air Force, but some Marines) from various Guard, Reserve, and Active Duty units were stationed at K-2. Currently, K-2 Airbase is home to the 60th Separate Mixed Aviation Brigade of the Uzbek Air Force. This updated information sheet provides background information and answers to some questions regarding environmental exposures at K-2 and risk of potential long-term adverse health effects associated with being at K-2.

What were conditions like at K-2?

K-2 was a deployment site located in the Qashqadaryo Province in southeastern Uzbekistan near the border with Tajikistan. Frequently reported exposures at K-2 were heat, noise, and poor air quality (usually elevated levels of particulate matter). The most frequent complaint by Service members assigned there in 2001 was of a bad smell coming from a trench near the original tent city.

What kind of assessment was done at K-2?

In accordance with Department of Defense deployment health policy, an Environmental Site Characterization and an Operational Health Risk Assessment was completed in November 2001, and follow-up Deployment Occupational and Environmental Health Site Assessments were completed in 2002 and 2004. Notable findings included:

Jet fuel. Widespread jet fuel plumes were found, usually 1-3 meters underground, most likely from a leaking Soviet-era underground fuel distribution system. This was the cause of the odor and pooling of "black goo" while digging.

Asbestos and Depleted Uranium. Localized areas of surface dirt contaminated with asbestos and low-level radioactive depleted uranium (DU) were also found; both were from the destruction of Soviet missiles several years before U.S. forces occupied K-2. Also, the 2004 Final Deployment Occupational and Environmental Health Site Assessment stated previous operational health risk assessments identified several structures (i.e., 416th AEG Vehicle maintenance Facility, Counterintelligence/Force Protection/Judge Advocate General [CI/FP/JAG] Building and its gazebo, and Military Police Headquarters Building) with friable asbestos containing material (ACM) tiled roofs.

However, the 2004 site assessment identified only one structure with ACM tiled roofs, the CI/FP/JAG Building's gazebo. The site assessment concluded airborne friable asbestos did not pose a health threat.

Particulate matter (PM). There were often high levels of dust and other particulate matter in the air. Levels of dust and PM in the air varied depending on the season and weather conditions. Levels of dust in the air can be significantly high during dust storms.

Noise. Operational noise evaluation indicated combined sources which generated noise levels equivalent to a large city or industrial facility. Major noise sources were the prime power generation station, subsistence/storage refrigeration trailer area, the refrigeration trailers located next to the base camp's dining facility and flight operations.

Could these exposures adversely affect my health?

Jet fuel vapor. Although the odor was unpleasant, air samples revealed that volatile organic compounds (VOCs) in the jet fuel vapor did not exceed Military Exposure Guidelines (MEGs) or other health exposure criteria. Adverse long-term health effects are not expected from exposure to the fuel vapors.

Asbestos. Although asbestos was present in the roof tiles of buildings used by U.S. and coalition forces and in localized areas of surface dirt, long-term adverse health effects would not be expected as air samples did not detect the presence of any airborne asbestos fibers. This indicates that personnel were not exposed to inhalable asbestos fibers. Additional protective measures are mentioned below.

If you have questions regarding this document please contact:
Army Public Health Center, Environmental Medicine Division,
DSN 312-584-2714; COMM 410-436-2714;
or email usarmy.apg.medcom-aphc.mbx.emp@mail.mil
5158 Blackhawk Road, Aberdeen Proving Ground, Maryland 21010-5403
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Depleted Uranium. DU was present in localized areas, but long-term adverse health effects would not be expected from depleted uranium contamination based on site assessments and the proper use of protective measures by personnel to prevent DU exposure.

Particulate matter. The evidence to date is inconclusive regarding increased risk of chronic respiratory conditions associated with military deployment to the CENTCOM AOR, which includes K-2. Some previously deployed personnel may however experience persistent symptoms or develop chronic respiratory conditions which may be due to their combined deployment exposures, unique experiences, and/or individual susceptibilities. The DOD acknowledges the concern regarding potential respiratory health effects associated with deployment and is collaborating with the VA and independent researchers to further evaluate and quantify potential long-term health risks related to deployment exposures.

Noise. Personnel could have been exposed to hazardous levels of noise that may lead to hearing loss. This risk is higher for individuals working near major noise sources without proper hearing protection.

What protective measures were taken?

The jet fuel contaminated trench was filled with clean soil to create a cap to hold the vapors underground. Areas contaminated with depleted uranium and asbestos were covered with a thick layer of clean dirt to mitigate exposure. These areas remained off-limits to everyday activity with restricted access, and both permission and protective equipment were required before any digging could occur. Air monitoring and other follow-up sampling continued to ensure that conditions did not change and that these protective measures remained effective.

What about chemical warfare agents?

In June 2002, news media reported that trace amounts of nerve and blister agents were detected in hardened aircraft shelters of the K-2 complex. After extensive confirmatory testing of new samples using specialized testing equipment, there were negative results for

chemical warfare agents (CWA). The initial field tests using less specific equipment gave false positive results most likely due to contaminants from recent painting and other refurbishing activities. Under these circumstances, it is not unusual to get false positive CWA test results from initial field testing. There was ongoing monitoring at K-2 to ensure Service members remained protected and to provide early detection and reporting if conditions changed.

Should I get a medical examination?

You do not need to get a medical examination or have additional medical screenings just because you were at K-2. If you have any concerns about your health, including medical conditions related to deployments, you should speak with your primary health care provider. If you are a Veteran and you believe your medical condition(s) was caused or aggravated by your military service, you can file a claim with the Department of Veterans Affairs (VA). Additionally, you can contact your nearest VA Environmental Health Coordinator via the following website to discuss any exposure related health concerns:

<http://www.publichealth.va.gov/exposures/coordinators.asp>.

What can I do to protect my health?

There are no specific health recommendations related to a deployment at K-2. In general, you can reduce your risk of developing medical conditions and experiencing injuries by following a healthy lifestyle. The Performance Triad is designed to optimize sleep, activity, & nutrition in order to maximize health. Prevention measures, such as driving safely, playing smart, using personal protective and safety equipment and drinking alcoholic beverages in moderation will also reduce risk. Avoiding known health risks such as tobacco/nicotine products, risky behaviors and unsafe conditions is also important. Following the Performance Triad guidelines and prevention recommendations will contribute to your overall health throughout life.

The Military Deployment Periodic Occupational and Environmental Monitoring Summary (POEMS): Karshi-Khanabad Airbase, Uzbekistan: 2001 to 2005, contains more detailed information about exposure data and health risks at K-2. This POEMS is available on the Army Public Health Center website via http://phc.amedd.army.mil/topics/envirohealth/hrasm/POEMS%20Documents/U_UZB_Karshi-Khanabad%20POEMS%202001-2005_Public%20Release%20Review.pdf.

Service members and Veterans whose only deployment was to K-2 are currently not eligible for the Airborne Hazards and Open Burn Pit Registry (<https://veteran.mobilehealth.va.gov/AHBurnPitRegistry>), but should check with the Department of Veterans Affairs (VA) periodically for future eligibility.