



Environmental Conditions at Karshi Khanabad (K-2)

A Collaborative Effort of DHCC, AFIERA, NEHC, and USACHPPM



American troops began working at K-2 (Stronghold Freedom) in Oct 01. K-2 is at the site of an old, Soviet-era air base in Uzbekistan and general conditions are harsh. It is 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 have worked at K-2 or are scheduled to go there soon. Some people who worked there are concerned that the environmental conditions may have affected their health. This information sheet provides background information and answers some of the more common questions.

What are conditions like at K-2?

This is a bare bones, rustic site, as is often the case with contingency operations. The most common complaint was of a bad smell coming from a trench near the tent city. Others talked about “black goo” while digging or mentioned high levels of disease, like TB.

What kind of assessment was done at K-2?

At any new site, an occupational and environmental baseline (EBS) survey is a required part of the health risk assessment process. In Nov 01, the U.S. Army Center for Health Promotion and Preventive Medicine-Europe (USACHPPM-EUR) did an EBS. They found widespread jet fuel plumes, usually 1-3 meters under ground, most likely from a leaking Soviet-era underground fuel distribution system. This was the cause of the odor and pooling associated with digging.

They also found smaller, localized areas of surface dirt contaminated with asbestos and low-level radioactive processed uranium, both from the destruction of Soviet missiles several years ago.

Finally, the amount of dust and other particles in the air was often high, varying with the season and weather, e.g., dust storms.

How would these exposures affect health?

Although the odor is unpleasant, the fuel vapor level found in the area of the trench is well below the Minimal Risk Level developed by the Agency for Toxic Substances and Disease Registry. Noses are sensitive and can sometimes detect chemicals at low levels that are not harmful to health.

Asbestos was present. However, it was not detected in the air and would not be inhaled, so any health risk from asbestos is very small. The level of radioactivity found cannot get through the skin, so the only health risk would be from breathing radioactive dust in the air or by living or working directly over the most radioactive areas. Neither of these situations was detected at K-2.

Dust is an irritant that bothers some people more than others. Symptoms such as cough, sneezing, sinus congestion, sinus drainage (“drip”), and sore throat are common during peak periods. People with asthma or allergies may have felt worse or needed more medicine

than usual. These effects usually go away quickly after the local weather improves and permanent health effects are uncommon.

Health effects from short-term, low-dose exposures found at K-2 are unlikely. However, a few scientists and clinicians feel that low doses of one or more environmental agents may cause a wide variety of symptoms in certain sensitive people. Unfortunately, there is conflicting evidence and not everyone agrees. Reported symptoms might include depression, anxiety, or unexplained physical symptoms such as fatigue, subjective memory and concentration problems, chronic pain, or an irritable bowel. Such symptoms can appear for many reasons and most commonly occur in people without any known exposure to environmental contaminants. This makes it hard for an individual, or their doctor, to tell if the symptoms are due to any specific K-2 exposure. Any new information about K-2 exposures or associated health effects will be sent to health care providers and service members right away.

What protective steps were taken?

The air base leadership took rapid protective action in Nov 01. They filled the trench with clean soil to create a cap to hold the vapors underground. They also covered the areas of radioactive soil and asbestos with a thick layer of clean dirt to keep people safe. These areas remain off-limits to everyday activity, and both permission and protective equipment are required before any digging can occur.

Air monitoring and other follow-up sampling are ongoing to ensure that conditions do not change and that these measures remain effective.

What about chemical warfare agents?

News media in Jun 02 reported that trace amounts of nerve and blister agents were detected in some areas of the K-2 complex. However, testing of new samples using specialized testing equipment was completely negative for chemical warfare agents. The initial tests were using less specific equipment apparently gave false positive results most likely due to contaminants from recent painting and other refurbishing activities. Monitoring continues at K-2 to ensure service members

remain protected and to provide early detection and reporting if conditions change.

What did post-deployment surveys show?

Service members are supposed to fill out a post-deployment survey (DD Form 2796) before leaving the theater. This is one of the ways the services monitor the conditions experienced by deployed troops. Of those surveys in which service members reported exposure concerns, the most common concerns were depleted uranium, petroleum products, tuberculosis, radio-frequency exposure, and general radiation exposure.

Should I go to the clinic?

You certainly should immediately seek care if you feel sick. You may also want to talk to a health care provider even if you feel well, especially if you are wondering about things that could happen in the future, even though you feel well now. Another reason could be if your family members have questions or concerns related to your service overseas.

What should I expect at the clinic?

First, when you make the appointment, be sure and say that it is to address concerns related to your deployment service. Many clinics will schedule a longer appointment so that there will be enough time to discuss things thoroughly.

The doctor will take a complete and thorough history and probably do a physical examination that focuses on your concerns. There may also be some blood tests, x-rays, or other examinations, depending on the doctor's concerns. It may also be necessary to schedule a follow-up appointment to talk about your test results or just to see how you are doing and ask if anything has changed.

Are there any specific tests I need?

The doctor will order any tests that might help figure out what is causing your symptoms. There are no specific tests that should be done just because you were at K-2.

Should I ask for a mental health consult?

Your doctor can help you decide. Serving your

country at remote sites like K-2 is difficult. Everyone handles such situations differently, but it is normal to feel stress after long periods of separation from your usual life and support system (family, friends, coworkers, etc.) and the physically demanding work can leave you tired and feeling worn out. Rest and time are important, but a mental health professional is a specialist who can provide even more benefits and support.

What if I'm not on active duty status?

The VA is one option. Recent legislation allows the VA to provide health care at no cost to all combat veterans for any illnesses that are at least conceivably related to military service, such as potential health effects from possible environmental exposures that occurred during deployment. The service is available to all combat veterans, including National Guard and Reserve members no longer on extended active duty, for a period of two years after their separation from military service, and the veteran is not required to prove a connection to military service. Veterans who supported this current deployment will be covered.

This document cannot fully address the different health care benefits available to each component service. Be sure and talk to your local benefits advisor.

What can I do to protect my health?

The most common killers are preventable. Take care of yourself by following a healthy lifestyle (don't smoke or chew tobacco, get regular exercise, eat a nutritious diet, drive safely, play smart, and drink alcohol in moderation, if at all).

Also, pay attention to the environment at your work, at home, and where you play. Correct any hazards within your control and report any unsafe conditions you can't fix to appropriate officials.

Summary of key messages.

The most important messages to remember are:

- There were no K-2 exposures of health consequence.
- The protective risk control measures were effective.
- Ongoing monitoring ensures continued protection.

Where can I get more information?

- **U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM)**
Phone: 800.222.9698 Internet URL: <http://chppm-www.apgea.army.mil>
Environmental sampling & risk assessment: Mr. Jeff Kirkpatrick 410-436-8155
General medical information: Dr. Coleen Weese 410-436-2578
- **Air Force Institute for Environment, Safety and Occupational Health Risk Analysis (AFIERA)**
Phone: 888.232.ESOH (3764) Internet URL: <http://afiera.afms.mil>
General medical information: Lt Col (Dr.) Kenneth L. Cox 210-536-1788
- **Navy Environmental Health Center (NEHC)**
Phone: 757.953.0764 Internet URL: <http://www-nehc.med.navy.mil>
General medical information: CDR (Dr.) Alan Philippi
- **Deployment Health Clinical Center (DHCC)**
Phone: 866.559.1627 Internet URL: <http://www.pdhealth.mil/>
Post-deployment health care information: LTC (Dr.) Charles Engel
- **Department of Veterans Affairs** Internet URL: www.va.gov/environagents