



Colorado Department  
of Public Health  
and Environment



US Army Corps  
of Engineers®

# FACT SHEET

## Atlas Missile Sites in Colorado

Fall 2003

### BACKGROUND

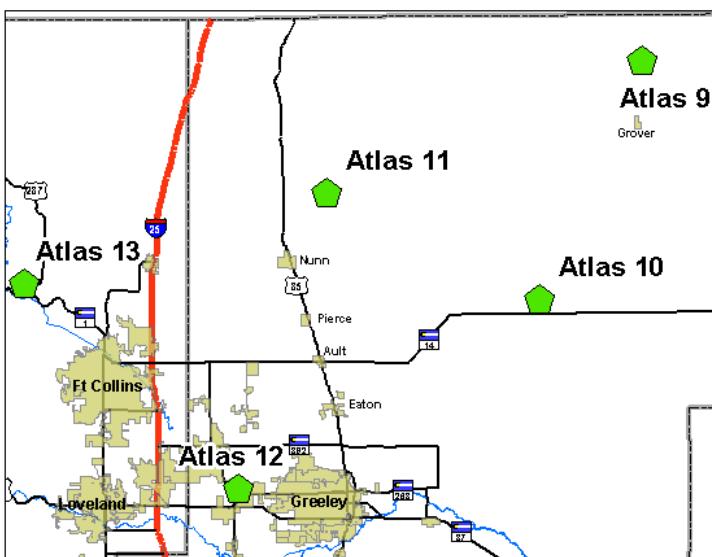
The Atlas E was one of the United States' first operational intercontinental ballistic missiles. The 82 foot-long missile was fueled by kerosene (RP-1 fuel) and liquid oxygen, and was designed to carry a nuclear warhead. A version of the Atlas missile was also used to launch four Mercury astronauts, including John Glenn, into earth orbit.

Developed in the late 1950's, the first Atlas E missiles became operational in late 1961. During the Cuban missile crisis in October 1962, the Atlas Es were readied for launch as a deterrent in the crisis. The Atlas E had a short operational life, however, and was phased out by 1965.

Each Atlas E missile site contained two underground structures: the missile launch and service building, and the launch operations building. The launch building consists of a large underground storage area that stored one Atlas missile horizontally. The roof would be retracted and the missile would be elevated into a vertical position for launch. The operations building contained crew quarters, launch control facilities, and diesel power generators. A tunnel connected the buildings. Complexes covered between 20 to 30 acres.



Atlas E missile complex.



Five former Atlas E complexes located north of Denver.

### ATLAS E SITES IN COLORADO

There are five former Atlas E missile sites in Colorado. They are scattered across the northern plains in Weld and Larimer Counties (*see map*). F.E. Warren Air Force Base in Cheyenne, Wyoming, provided command and support facilities for the Atlas sites.

The sites were decommissioned and the missiles removed in 1965. The complexes were then sold to public and private owners. Two of the sites are used for commercial purposes, one is being converted into a residence, another has been covered with soil, and one has become the Weld County Missile Park.

### REGULATORY SETTING

The Atlas sites are being investigated for the Department of Defense (DOD) by the U. S. Army Corps of Engineers, Omaha District. The sites fall under the Formerly Used Defense Sites (FUDS) program, which follows the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or "Superfund" process, although the sites are not on the Superfund National Priorities List.

The Colorado Department of Public Health and Environment provides regulatory oversight of the FUDS programs in Colorado, with assistance from the U.S. Environmental Protection Agency, Region 8, and local governments.

## **ENVIRONMENTAL INVESTIGATIONS**

Environmental investigations have focused on past DOD practices at the missile sites, and include sampling and analysis of soil, ground water, domestic well water, and water and air in the complexes.

- Soil contamination from petroleum chemicals and/or from polychlorinated biphenyls (PCBs) has been found at all five Atlas sites in Colorado.
- Ground water contamination from trichloroethylene (TCE), a cleaning solvent, has been found in aquifers at Atlas sites 11, 12 and 13. TCE was used during site construction and by the missile crews to flush the fuel tanks after missile readiness tests. The crews disposed of the spent TCE and residual RP-1 in a sump below the launch building, which then entered shallow ground water.
- Water from domestic wells near some of the sites has been tested. No contamination has been found to date in any nearby domestic wells.
- Water in the launch building sump at Site 12 contains TCE and indoor air above the launch building sump at Site 11 contains TCE.

## **IS RADIATION A CONCERN?**

While the Atlas E missile was armed with a plutonium-based nuclear warhead, the Colorado Department of Public Health and Environment has no evidence of radioactive contamination at the sites. Warhead maintenance occurred at the warhead-manufacturing facilities, not at the sites themselves.

## **ARE THERE ANY HEALTH CONCERNS FOR PEOPLE LIVING CLOSE TO AN ATLAS SITE?**

Ground water contamination by TCE is the greatest concern at the Atlas sites. Investigations are focused on determining the extent of contamination, but there have been no detected impacts to private wells to date.

Localized areas of soils contamination found on the sites do not pose a health risk to nearby residents because they are confined to the sites. Most sites are private property and should not be entered. Tours of the Weld County Missile Park site may be arranged with the county.

## **FUTURE ACTIONS AND PUBLIC INVOLVEMENT**

As investigations are completed at each site, a clean-up plan will be prepared and be available for public review and comment. Two information repositories have been established that contain documents related to the environmental investigations at the Atlas sites. In addition, two public meetings will be held in October 2003 to discuss the investigations and any possible cleanup.

### **For More Information**

#### **Derek Boer**

Community Involvement Specialist  
Colorado Department of Public Health & Environment  
Tel. (303) 692-3329  
Email: comments.hmwmd@state.co.us

#### **Peggy Linn**

Community Involvement Coordinator  
Environmental Protection Agency  
Tel. (303) 312-6622  
Email: linn.peggy@epa.gov

#### **Jill Solberg**

Public Affairs Specialist  
U.S. Army Corps of Engineers, Omaha District  
Tel. (402) 221-3908  
Email: jill.c.solberg@usace.army.mil

### **Information Repositories**

**Larimer County, Site 13**  
Fort Collins Public Library  
201 North Peterson Street  
Fort Collins, CO 80524-2919

### **Weld County, Sites 9, 10, 11 and 12**

Weld County Library District  
Farr Branch Library  
1939 61<sup>st</sup> Street  
Greeley, CO 80634