



# FACT SHEET

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**Deployment Health Support Directorate**

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## **Deseret Test Center**

### **West Side, Phase I**

Shortly after President Kennedy's inauguration in 1961, the Secretary of Defense, Robert McNamara, directed that a total review of the U.S. military be undertaken. The study consisted of 150 separate projects. The chemical and biological warfare review was known as Project 112. As part of the Project 112 review, the Joint Chiefs of Staff convened a working committee that recommended a research, testing, and development program for chemical and biological weapons. To oversee this program, the Deseret Test Center was established at Fort Douglas, Utah, in 1962. Both land-based and ship-based tests were conducted during the period 1962 – 1973. The Deseret Test Center closed in 1973.

The purpose of West Side, Phase I was to evaluate the A/B 45Y-4 dry agent disseminator in a frigid environment. The A/B 45Y-4 was wing-mounted on an F-105D aircraft. Specifically, the objectives of the test were to evaluate the source strength, dissemination efficiency, and functional characteristics of the dry disseminator with the simulant *Bacillus globigii*, and to measure the diffusion of particulate biological aerosols disseminated by line source in a cold-weather test environment. To aid this investigation, two tracer materials – green and yellow zinc cadmium sulfide (FP) – were disseminated from a light aircraft under similar test conditions.

West Side, Phase I was conducted in the Tanana Valley of central Alaska, near Fort Greely, during the period January 8 through February 21, 1965.

The Department of Defense (DoD) is providing this information, at the request of the Department of Veterans Affairs (VA), to assist the VA in providing healthcare services to qualified veterans and to assist veterans in establishing service connection for disability claims. The Deployment Health Support Directorate (DHSD) collected this information from multiple sources and requested that the military services declassify it to allow its public distribution. The VA accepts this information provided on location, dates, units and/or ships, and substances involved in this exercise, which DHSD extracted from classified DoD records, and will provide it to individual veterans as necessary, but the VA cannot verify its accuracy.

<b>Test Name</b>	West Side, Phase I (DTC Test 65-3)
<b>Testing Organization</b>	US Army Deseret Test Center
<b>Test Dates</b>	January 8 – February 21, 1965
<b>Test Location</b>	Tanana Valley of central Alaska near Fort Greely
<b>Test Operations</b>	To evaluate the A/B 45Y-4 dry agent disseminator in a frigid environment.
<b>Participating Services</b>	US Army, US Air Force, Deseret Test Center personnel
<b>Units and Ships Involved</b>	Not identified
<b>Dissemination Procedures</b>	Tracer material sprayed from an A/B 45Y 4 disseminator tank mounted on an F 105D aircraft.
<b>Agents, Simulants, Tracers</b>	<i>Bacillus globigii</i> Zinc Cadmium Sulfide (FP)
<b>Ancillary Testing</b>	Not identified
<b>Decontamination</b>	Not identified
<b>Potential Health Risks Associated with Agents, Simulants, Tracers</b>	<u><i>Bacillus globigii</i></u> (BG) Now considered to be <i>Bacillus subtilis</i> var. <i>niger</i> ; a close relative of <i>Bacillus subtilis</i> , this bacterial species was used as a simulant and considered harmless to healthy individuals. <i>Bacillus subtilis</i> and similar <i>Bacillus</i> species are common in the environment, and are uncommon causes of disease. They have been associated with acute infections of the ear, meninges (brain lining), urinary tract, lung, heart valve, bloodstream, and other body sites, but always or nearly always in individuals whose health has already been compromised. Long-term or late-developing health effects would be very unlikely (except perhaps as a complication of the acute infection).

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(Sources: Tuazon CU, *Other Bacillus Species* (chap. 197), in *Principles and Practice of Infectious Diseases*, 5<sup>th</sup> edition (vol. 2), ed., Mandell GL, Bennett JE, Dolin R, Churchill Livingstone, Philadelphia, 2000, p. 2220-6; US Environmental Protection Agency, *Bacillus subtilis* Final Risk Assessment, February 1997, available at <http://www.epa.gov> as of October 4, 2002.)

Zinc cadmium sulfide (ZCdS)

This compound was aerosolized as a tracer material for the dispersion of biological warfare agents because it had similar properties. There has been little scientific study on the toxicity of this compound when inhaled. A National Research Council (NRC) committee focused on the cadmium component as potentially most toxic. While higher concentrations and more prolonged exposures to cadmium are associated with the development of lung cancer, the concentrations and durations of exposure in the Army's tests were substantially lower. The NRC committee concluded that the risk of adverse health effects to populations in the area was low.

(Sources: National Research Council (National Academies), *Toxicologic Assessment of the Army's Zinc Cadmium Sulfide Dispersion Tests*, and *Toxicologic Assessment of the Army's Zinc Cadmium Sulfide Dispersion Tests: Answers to Commonly Asked Questions*, National Academy Press, Washington DC, 1997, both available at <http://www.nap.edu> as of October 1, 2002.)

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