



# FACT SHEET

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Assistant Secretary of Defense (Health Affairs)  
**Deployment Health Support Directorate**

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## Deseret Test Center

### West Side, Phase II

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 II was to evaluate the area coverage capabilities of the A/B 45-Y-4/F-105 powdered agent dissemination system as used operationally over a northern open plains region during cold weather. Twelve trials were conducted in which both *Bacillus globigii* and zinc cadmium sulfide (FP) were simultaneously disseminated, each from separate, wing-mounted Y-4 disseminators on an F-105 aircraft. A second release of FP of a different fluorescent color was made by a contractor aircraft immediately after the dissemination run by the F-105. The contractor aircraft, a JHC-47, and EW-2 disseminator released FP both above and below the inversion top to measure its influence on aerosol travel.

The Canadian government permitted three flight paths for the dissemination of tracers. These flight paths and the corresponding trajectories of aerosol travel were selected to preclude travel of simulants and tracers over heavily populated areas, or over the inhabited areas of Suffield Experimental Station.

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.

## WEST SIDE, PHASE II

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West Side, Phase II was conducted in the Great Plains Region of central Canada, with the test area extending north and east from the Suffield Experimental Station, southern Alberta Province, and into southwestern Saskatchewan. The testing period extended from January 5 through March 7, 1965.

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## WEST SIDE, PHASE II

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| <b>Test Name</b>   | West Side, Phase II (DTC Test 66-8)   |
| <b>Testing Organization</b>  | US Army Deseret Test Center   |
| <b>Test Dates</b>  | January 5 – March 7, 1965   |
| <b>Test Location</b>   | Great Plains Region of Central Canada, north and east of the Suffield Experimental Station, southern Alberta Province, and into southwestern Saskatchewan   |
| <b>Test Operations</b>   | To evaluate the area coverage capability of an airborne dry agent dissemination system when operated in a frigid environment.   |
| <b>Participating Services</b>  | US Air Force, Deseret Test Center personnel   |
| <b>Units and Ships Involved</b>  | Not identified  |
| <b>Dissemination Procedures</b>  | Simulant and tracer material sprayed from an AB 45-Y4 powdered agent disseminator mounted on an F-105 aircraft. Tracer material was also disseminated above and below the inversion layer using an EW-2 disseminator mounted on a contractor-operated JHC-47 aircraft.  |
| <b>Agents, Simulants, Tracers</b>  | <i>Bacillus globigii</i><br>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)<br>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 |

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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).

(Sources: Tuazon CU, Other Bacillus Species (chap. 197), in Principles and Practice of Infectious Diseases, 5th 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

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|  | <p>Cadmium Sulfide Dispersion Tests: Answers to Commonly Asked Questions, National Academy Press, Washington DC, 1997, both available at <a href="http://www.nap.edu">http://www.nap.edu</a> as of October 1, 2002.)</p> |
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