



FACT SHEET

Office of the
Assistant Secretary of Defense (Health Affairs)
Deployment Health Support Directorate

For more information
(703) 578 - 8500
(800) 497 - 6261

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Deseret Test Center

Sun Down

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 Sun Down was to evaluate simulant and sarin-filled BLU-19/B23 bomblets in forested and open terrain with snow cover at temperatures between -18°C and -1°C.

Trials were conducted using BLU-19/B23 bomblets filled with methylacetoacetate, tiara, and sarin nerve agent. Bomblets filled with methylacetoacetate were both statically detonated under snow and projected into an open, snow-covered area to determine their depth of detonation in the snow. Bomblets filled with tiara were fired into a spruce forest to determine height of detonation. Five sarin-filled BLU-19/B23 bomblets were statically detonated.

Sun Down was conducted at the Gerstle River test site on Fort Greely, Alaska during February and April 1966.

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.

Test Name	Sun Down (DTC Test 65-11)
Testing Organization	US Army Deseret Test Center
Test Dates	February, April 1966
Test Location	Gerstle River test site, Fort Greely, Alaska
Test Operations	To evaluate the simulant and sarin-filled BLU-19/B23 bomblet in forested and open terrain with snow cover at temperatures between -18°C and -1°C.
Participating Services	US Army, Desert Test Center personnel
Units and Ships Involved	Not identified
Dissemination Procedures	Bomblets were statically detonated as well as projected into the open to determine depth and height of detonations.
Agents, Simulants, Tracers	Sarin Nerve Agent Methylacetoacetate Tiara
Ancillary Testing	Not identified
Decontamination	Not identified
Potential Health Risks Associated with Agents, Simulants, Tracers	<u>Sarin Nerve Agent</u> (GB) Sarin gas is a volatile and lethal nerve agent. It can enter the body by inhalation, ingestion, through the eyes, and to a lesser extent through the skin. After exposure to a sufficient dose, human symptoms may occur within minutes and include runny nose, watery eyes, difficulty breathing, dimness of vision, confusion, drowsiness, coma, and death. Very little information is available regarding long-term health effects following exposures to low levels that do not cause acute symptoms. No information is available regarding potential carcinogenicity. An Institute of

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Medicine committee concluded that there was insufficient evidence for or against an association between low-level sarin exposure and long-term health effects.

(Sources: <http://www.bt.cdc.gov/Agent/Nerve/Sarin/Sarin.asp> [as of February 13, 2002] Institute of Medicine (National Academies), Gulf War and Health (vol.1): Depleted Uranium, Pyridostigmine Bromide, Sarin, Vaccines. National Academy Press, Washington DC, 2000.)

Methylacetoacetate (MAA)

This compound was used as a simulant. While acute exposure has been associated with irritation of skin, eyes, respiratory tract, and digestive tract, there is little or no evidence of long-term or late-developing health effects and it is not known to cause cancer in animal testing.

(Sources: NLM TOXNET, Methyl acetoacetate 105-45-3, HSDB Human Health Effects and Animal Toxicity Studies, available at <http://toxnet.nlm.nih.gov>. <http://hazard.com/msds/tox/f/q4/q936.html> [as of January 28, 2002] and http://www.hbcollege/chem/lab/organic/gilbert3e/resources/studenttools/dl/e_mmsds.pdf)

Tiara is a luminescent gelatinous material. No further information is available on this substance.

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