



FACT SHEET

Office of the
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Deployment Health Support Directorate

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Deseret Test Center

Red Oak, 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 purposes of Red Oak, Phase I were to determine the height-of-burst distributions of the 121A1 (155mm) chemical projectiles and the M55 (115mm) rocket warheads when fired into a jungle environment, and to determine the effects of fragmentation from bursting chemical munitions.

Red Oak, Phase I was conducted on the Island of Hawaii and in the Panama Canal Zone. Tests involving the M55 rocket warhead and the dissemination of Sarin nerve agent from the M121A1 projectile were conducted in the upper Waiakea Forest Reserve on the Island of Hawaii, southwest of Hilo.

Tests to determine fragmentation effects of artillery projectiles were conducted on the Pina Ridge near the Fort Sherman Military Reservation, Panama Canal Zone. These tests were not chemical weapons tests. Instead they used either standard artillery rounds or projectiles filled with an unspecified simulant.

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	Red Oak, Phase I (DTC Test 66-2)
Testing Organization	US Army Deseret Test Center
Test Dates	April – May 1967
Test Location	Upper Waiakea Forest Reserve, Island of Hawaii Pina Ridge, near Fort Sherman Military Reservation, Panama Canal Zone
Test Operations	To evaluate the effectiveness of Sarin filled 155mm artillery projectiles and 115mm rocket warheads in a tropical jungle environment.
Participating Services	US Army, Deseret Test Center personnel
Units and Ships Involved	Not identified
Dissemination Procedures	Munitions were statically detonated.
Agents	Sarin Nerve Agent (Hawaii)
Simulants and Tracers	Unspecified chemical agent simulant (Panama Canal Zone)
Ancillary Testing	Not identified
Decontamination	Not identified
Potential Health Risks Associated with Agents, Simulants, Tracers	<u>Sarin Nerve Agent (GB)</u> 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

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Institute of 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.)

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