



# ***FACT SHEET***

Office of the Special Assistant to the  
Under Secretary of Defense (Personnel and Readiness)  
for Gulf War Illnesses, Medical Readiness  
and Military Deployments

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## **Project Shipboard Hazard and Defense (SHAD)**

### **Autumn Gold**

Project Shipboard Hazard and Defense (SHAD) was a program encompassing several tests undertaken in the 1960s to learn the vulnerabilities of US warships to an attack with chemical or biological warfare agents and develop procedures to respond to such an attack while maintaining a war-fighting capability.

The purpose of the Autumn Gold test program was to examine shipboard vulnerabilities and capabilities during a chemical or biological warfare agent attack. The test's primary objective was to determine the efficiency of shipboard protection systems such as detectors and decontaminants. The Autumn Gold test used a biological tracer.

According to the Autumn Gold test plan and final report, the crews who participated in the tests were not test subjects, but test conductors. Participants should have been fully informed of the details of each test. Before testing began, all persons involved in Autumn Gold should have received comprehensive biological and chemical agent training. Trial tests conducted before the actual test should have reinforced the training already received and ensured everyone involved knew their role in the test. The training program should have included training in the areas of using protective masks and clothing, medical training and immunizations, knowledge of chemical and biological agents and simulants, and knowledge of test procedures and processes. Under actual test conditions, test conductors should have worn appropriate nuclear, biological, and chemical (NBC) protective equipment and should have taken extensive safety precautions to prevent any adverse health effects from the testing.

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 Office of the Special Assistant to the Under Secretary of Defense (Personnel and Readiness) for Gulf War Illnesses, Medical Readiness and Military Deployments (OSA) collected this information from multiple sources and requested that the military services declassify it to allow its public distribution. The VA accepts the information provided on location, dates, units and/or ships, and substances involved in this exercise, which the OSA 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>	Autumn Gold (Test 63-2)
<b>Testing Organization</b>	US Army Deseret Test Center
<b>Test Dates</b>	3-31 May, 1963
<b>Test Location</b>	Testing was conducted on the open sea approximately 60 miles west-southwest of Oahu in the Hawaiian Islands
<b>Test Operations</b>	Three phases simulating stages of combat preparedness. Each phase consisted of three trials: Phase A. Defense against chemical and biological attack Phase B. Battle or near-battle condition. Phase C. Wartime or battle steaming.
<b>Participating Services</b>	Navy, Marines, plus Deseret personnel
<b>Units and Ships Involved</b>	A. USS <i>Navarro</i> (APA-215) B. USS <i>Tioga County</i> (LST-1158) C. USS <i>Carpenter</i> (DD-825) D. USS <i>Hoel</i> (DDG-13) E. USS <i>Granville S. Hall</i> (YAG-40) F. Marine Air Group 13, First Marine Brigade
<b>Dissemination Procedures</b>	Sprayed from A4B aircraft.
<b>Agents, Simulants, Tracers</b>	<i>Bacillus globigii</i> (BG). Harmless to humans, BG is ubiquitous and found easily in samplings of wind-borne dust. BG is safely used in biological studies as a stand-in for pathogenic bacteria. BG is used as a biological tracer for anthrax because its particle size and dispersal characteristics are similar to those of anthrax. A household bleach-and-water solution easily kills BG.
<b>Ancillary Testing</b>	M-17 and Navy's Mark IV protective masks
<b>Decontamination</b>	Water wash-down system (salt water), fire hoses (salt water), air wash by forced ventilation

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