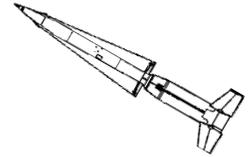


# White Sands Missile Range Historical Foundation NEWSLETTER



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## From Your Board President

Everett Edward Townley

Just a reminder, the Foundation By-laws states the following concerning membership: "The Foundation shall consist of a membership. The rights of the membership; shall be obtained through payment of dues and/or gift to the Foundation of in kind services or materials and/or underwriting specific projects. Categories and levels of membership shall be determined by the Board of Directors. Individual, business, and organization members shall be referred to collectively as the General Membership. Each separate membership in good standing is entitled to one vote at the General Membership meeting. The Board of Directors may disapprove an application only for reasons of conflict of interest or impropriety inconsistent with the purpose of the Foundation."

## Volunteers Make a Difference

The United States Army maintains a system of museums that collect, preserve and interpret the historical artifacts/art that have been used by our soldiers in the defense of our country. The mission of the White Sands Missile Range Museum is to collect, curate and exhibit the historical artifacts and other material culture items necessary to interpret the prehistoric, historic and modern occupation and use of the lands occupied by, or in some cases adjacent to, the current 3200 square mile installation. Primary attention will be devoted to educating military personnel in particular, and the region's civilian population

in general, on the Army's 19th century Indian War campaigns in the Tularosa Basin; the Trinity Site Test; and the rocket, missile and other weapons development projects carried on at White Sands after World War II and during the ensuing Cold War period. More recent test and evaluation activities will be addressed as appropriate. Our museum is financially supported by White Sands Missile Range and assigned and/or tenant units with assistance from public donations of money and much needed volunteers' time.



A Navy Terrier Anti-Aircraft Missile being launched from LC-37

## Terrier

Terrier was an all-weather surface-to-air missile. Designed to intercept enemy aircraft at longer ranges and higher altitudes than conventional anti-aircraft guns, the 15-foot weapon weighed about 1.5 tons, had a range of about 10 miles, and utilized a solid fuel. It employed beam-riding guidance.

The missile was suitable for shipboard use or beachhead operations with the Marine Corps. Shipboard Terriers were selected automatically from the

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A Nike Hercules Anti-Aircraft Missile being launched from LC-33 in the Mid 50s

## Nike Hercules

Nike-Hercules was the second land-based, combat-ready, completely mobile, surface-to-air guided missile system to be placed into the active air-defense system of the United States. The Nike-Hercules made a major advance in the Nike family of guided missiles and was many times more effective than its predecessor, the Nike-Ajax. The Nike-Hercules, a relatively inexpensive and simple missile, used solid propellants. An air-to-surface missile or a bomber complete with its bomb load could be destroyed well beyond the radius of the defended area. The missile, with instantaneous responsiveness, was propelled to a range substantially greater than that of Nike-Ajax. The system was capable of operating in an electronic countermeasures environment and had the ability to progressively accommodate improvements to the system. The Nike-

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Hercules was sited to defend many SAC bases and was added to all metropolitan areas under the protection of Nike-Ajax.

The Army's design, development, and production of the missile system was the result of extensive effort by the Army Ordnance Corps. Test firings of the NikeHercules (then known as the Nike B) began at WSPG in January 1955. The development program scored its first drone intercept on October 31, 1956, and its first intentional drone kill on April 25, 1957. During the years from 1956 to 1964, over 810 Nike-Hercules were fired from the range. The missile was designated SAM-N-25 when first introduced and M6 and M6A1 when deployed. The system was designated MIM-14A and B. At its peak deployment, the Nike Hercules had 134 batteries. Because of the changing threat, most all Nike batteries were closed by the mid-1970s.

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magazine and loaded on the launcher, which was then automatically trained, elevated, and fired. The entire operation took only seconds. Radar then guided Terrier to the target.

Terrier was the result of eight years of research and development that began in 1949 under the direction of the Bureau of Ordnance Bumblebee Program. The research-and-development version was called the SAM-N-7. Testing took place at NOTS China Lake, with the first round fired on February 16, 1950. The program arrived at WSPG in 1952, with the first Terrier booster rounds fired on October 9, 1952. Over the next month, two more rounds were fired

from the Navy launch facilities (LC-35). The system was finally deployed in June 1956.

The advanced Terrier was intended for the same surface-to-air requirements as noted for Terrier above. However, the advanced Terrier incorporated improved guidance features (the beam rider and tafl control) and was designed to provide substantial improvements over the original Terriers in coverage against supersonic threats. The system RIM-2C was deployed on 3 carriers, 6 cruisers, and 30 frigates of the U.S. Navy. The Terrier, combined with the Tartar, formed the basis of the standard system in use today.



An Air Force Sidewinder Missile is shown in the Museum Missile Park

#### **Sidewinder**

One of the most influential missiles in history, the Sidewinder was named after the desert rattlesnake of the same name. The missile was guided by an infrared or heat-seeking device. It seeks the target by homing in on the heat emitted from the aircraft. It is a relatively inexpensive and reliable

weapon, measuring 9 feet long and weighing about 155 pounds. Sidewinder is designed for destroying high-performance enemy fighters and bombers from sea level to altitudes over 50,000 feet. The missile, which has very few moving parts and no more electronic components than an ordinary radio, requires no specialized technical training to handle and assemble effectively.

The missile was initially designated XAAM-N-7 during its development phase, and N-7 (USN), GAR-8 (USAF), and SW-1 (NOC) when in production in 1956. Sidewinder was the primary guided-missile weapon used by aircraft squadrons of the Sixth Fleet in the Mediterranean and the Seventh Fleet in the Western Pacific. It is basically a defensive air-to-air weapon to protect our sailors and ships at sea from attacks by enemy aircraft. The Navy and the Air Force also employed it for air defense of the Continental United States. The missile permits defending fighters to knock down the fastest enemy aircraft, even when it is miles away.

Development of the Sidewinder was assigned to the Navy Ordnance Test Station of the Bureau of Ordnance, China Lake, California, in 1950. Dr. William B. McLean of the test station, who originally developed the missile, saved the Navy over \$40 million and was subsequently awarded \$25,000 for his outstanding achievement. The first round was fired on September 11, 1953.

Sidewinder-IC is an advanced (second-generation) model of the Sidewinder, and was in use in 1962.