



Nike Hercules System

Signs of the military's historical presence are everywhere in the Marin Headlands. The Nike missile system was the last generation in a long line of defensive armament that began when a Spanish sailing ship brought bronze cannon to guard the narrows of the Golden Gate from foreign trespassers. The United States Army placed more and more powerful guns in these hills until after World War II, when it became clear that future threats would come primarily from the air, not the sea.

As part of a new air defense system, Nike missile sites were deployed across the continental United States, in Hawaii and Alaska. The Nike missiles were designed to protect key industrial centers and military sites from Soviet bombers during the years 1954-1974. These anti-aircraft missiles functioned as the last line of a defensive team that also consisted of an early warning radar network, analog computer-driven communications systems, and Air Force jet interceptors. Guided by radar, the Nike missiles could be successfully targeted to hit incoming enemy aircraft.

Nike missiles add to our understanding of Cold War history in several ways. As the first practical anti-aircraft missile system, Nike required a huge investment to build, staff, and maintain. The Nike missile system was deployed near urban areas, thereby bringing the perceived and real threats of the Cold War close to home for many Americans. The heavy financial investment and the urban locations had lasting economic and social impacts nationwide.

Site SF-88 in the Marin Headlands is the only Nike missile site preserved and interpreted as a historic resource. The site gives us the opportunity to see the intimate reality of a military mission that went on around the clock for more than forty years, out of sight and mind for most Americans, but almost always dimly in the national consciousness.



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The Nike Missile System in Military and Historical Context

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Introduction

Think about the way time affects your emotions. How did you feel about the terrorist attacks on September 11, 2001? How do you think you will feel about them in 2010, nine years later? What were you doing nine years ago? Maybe you were living in the same place. Perhaps not. Maybe you had the same interests. Perhaps not.

Now, try and put yourself in the shoes of people living in 1950. It is nine years after the surprise attack on Pearl Harbor—until September of 2001, the most costly attack in terms of loss of human life on American soil by a foreign nation. The Soviet Union, whom we consider to be our enemy, suddenly has the atomic bomb and the ability to drop it on us. Welcome to the Cold War.

Defending the Coast

Signs of the military's historical presence are everywhere in the Marin Headlands. In fact, this scenic open space now exists as part of a national park, rather than covered with concrete and houses, because the federal government reserved the land for military purposes more than 150 years ago when California joined the Union.

Coastal defense began in the 1770s, when a Spanish sailing ship brought bronze cannon to guard the narrows of the Golden Gate from trespassers. When California became part of the United States in 1850, the U.S. Army placed increasingly powerful guns in these hills. By the end of World War II (1945), it became clear that future threats would come not from the sea but from the skies overhead. The Nike missile system was the last in a long line of defensive armaments sited in the headlands.

Air Raid Shelters and Elvis

Air raid shelters and Elvis, *Sputnik* and surfers, James Bond and James Brown, civil rights struggles and bohemian lifestyles. The 1950s and 1960s gave Americans a lot to think about and dramatic social changes to adjust to in what some perceived to be a short time frame.

From 1950 to 1953, war raged in Korea, and many feared that it was just the first phase in a broader worldwide conflict between Communist nations and the



United States and its western allies. The threat posed by the existence of Soviet nuclear-armed long-range bombers led to the deployment of anti-aircraft guns to protect cities in the continental United States. Eventually, the government feared that the Soviet bomber force could overwhelm U.S. defenses.

The successful 1957 Soviet launching of *Sputnik*, the world's first artificial satellite, not only demonstrated the Soviets' technical ability, it also showed that outer space—the final frontier—was yet another area in which the two nations would compete. During the election of 1960, soon-to-be president John F. Kennedy heightened America's fear of the Soviets and their intentions with descriptions of the "missile gap" between the two superpowers.

Against this backdrop, the Nike anti-aircraft guided missile system was developed and deployed.

The Nike Missile System

Nike missile sites were completed in 1954 near strategically important cities, industrial sites (including atomic weapons factories), and military bases. These anti-aircraft missiles functioned as the last line of a defensive team that also consisted of an early warning radar network, analog computer-driven communications systems, and Air Force jet interceptors.

Nike missiles are important to the understanding of Cold War history for several reasons. Nike was the first practical anti-aircraft missile system. It required a huge investment to put into place and maintain. And probably most dramatically, because it was deployed near dense urban areas, it brought home the threats of the Cold War to a great number of people.

A New MAD Era

Spurred in part by their public humiliation in the Cuban Missile Crisis of 1962, the Soviets brought increasing numbers of intercontinental ballistic missiles (ICBM) into service; their numbers were quickly matched by the United States. By the end of the 1960s, these nuclear-armed ICBMs were clearly a greater threat than bombers – it is much more difficult to shoot down a high-speed missile than a jet fighter. When guided-missile submarines began prowling off shore waters, the threats increased, as did general public anxiety.

With defensive measures against a missile attack seemingly impossible, a policy of "mutually assured destruction" (MAD) became the most effective deterrent for both the U.S. and the Soviet Union. The theory was that neither side would dare to launch a missile attack if it feared that enough enemy missiles would survive to execute a devastating retaliatory strike.



This policy guaranteed that the arms race would continue, since both sides wanted to have the ability to survive a first strike; it also limited strategic options to either heavily armed peace or all-out thermonuclear war. Some people said the policy was not just named MAD, but it *was* mad.

Nevertheless, because of MAD, or in spite of it, an uneasy peace prevailed between the superpowers until the end of the Cold War in 1991. Both sides turned to allies and client states to fight peripheral wars, as in Vietnam and Afghanistan.

The End of Nike

The Anti-Ballistic Missile Treaty of 1972 forbade either side from developing any more anti-missile weapons systems, based on the premise that doing so would encourage a surprise attack before the huge stockpiles of ICBMs were rendered obsolete.

By 1974, most Nike missile sites in the continental United States were abandoned, since ICBMs would destroy anti-aircraft defenses and jet interceptors could take care of a follow-on bomber force.

At present, the United States' strategic air defensive system consists of improved radar capabilities, airborne early warning aircraft (AWACS), and a new generation of jet interceptors. And, as it does with everything, time has brought a change in national feelings--the development of an anti-missile system has once again become a hotly debated political issue in the United States.