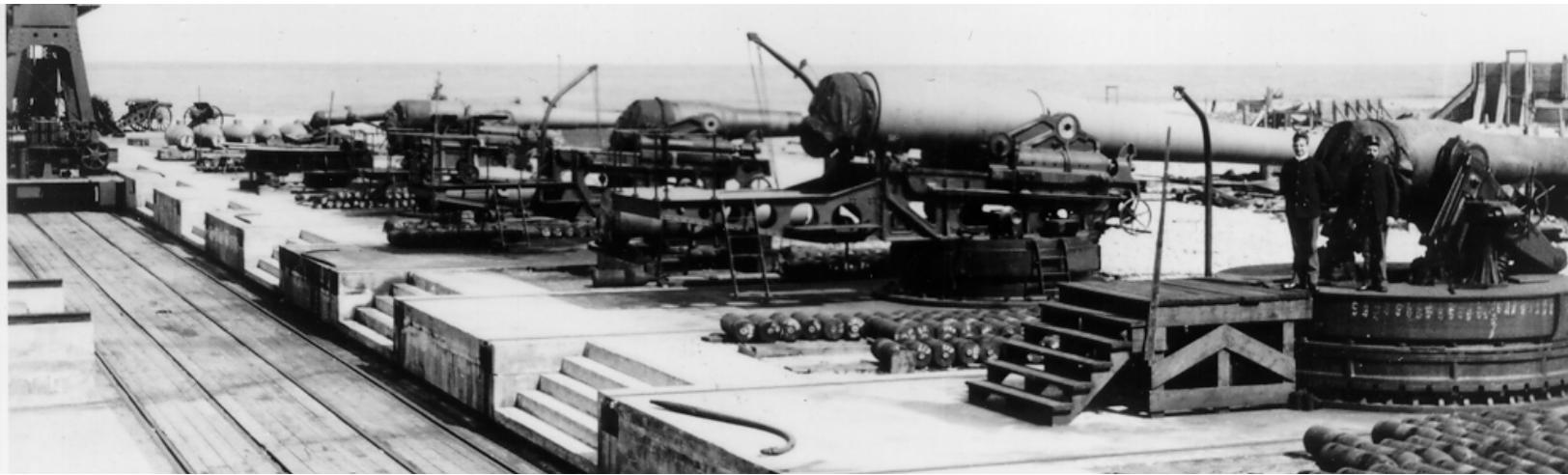




## Sandy Hook Proving Ground



From 1874 until 1919, the sound of gunfire and the smell of burning gunpowder filled the air at the Sandy Hook Proving Ground. This is where the Army's Ordnance Department tested, or 'proved' new weapons and ammunition.

---

### What is a Proving Ground?

A Proving Ground is a facility where new weapons are tested. The American Civil War introduced new weapons that were used for the first time in the history of war. Rifled cannon fired pointed-nosed projectiles farther and faster than cannonballs. Steam powered, iron clad warships mounted powerful guns that could easily destroy fort walls. By the late 1860's, many countries were

developing new weaponry and warships. Their new breech-loading (rear-loading) cannons and fast armored warships made America's harbor defense forts, and the smoothbore, muzzle-loading Rodman Guns in them, obsolete. For this reason, the United States planned to develop new types of large guns and, at the same time, convert its large stock of Rodman Guns into rifled cannons.

---

### The Army's First Proving Ground

The U.S. Army Ordnance Department established a temporary proving ground at Sandy Hook in 1874. Sandy Hook was already owned by the Federal Government and provided flat and open land near a large industrial city with good water and rail transportation routes. It was also isolated enough from towns to avoid the possibility of injury and damage from ordnance testing.

The "Proof Battery," where new and converted guns would be fired, was built near the north end of the Hook along the ocean side. The firing range extended 3,000 yards south along the beach. For long range test firing, guns would be aimed out to sea to provide the necessary distance.

The first test firing took place at the Proving Ground in October 1874, when a 10-inch Rodman smoothbore cannon, converted into an 8-inch rifled gun, was fired. After firing 700 rounds, the

Ordnance Board found the gun to still be "sound and serviceable." Over the next six years, several converted Rodman Guns were tested for accuracy, range and striking power. To test the guns striking power, armor piercing projectiles were fired at large, thick iron plates, similar to those used in making warships. These tests proved that rifled Rodman Guns could penetrate the armor but only at limited distances.

In the 1880's, new high-powered breech-loading rifled cannons made of steel were introduced. They had greater ranges and more striking power. When new models of guns and mortars passed their ordnance tests, they were mass-produced at gun foundries around the country. They were then sent to Sandy Hook for testing before being issued for use. Many new types of gun powders, artillery shells, primers, and fuses used to explode projectiles were also tested.

---

### The Proving Ground Expands

When first established, the Proving Ground was a temporary facility with few support buildings. All but one was made of wood. The exception was the Officers' Quarters, a large, red brick, Second Empire Style Victorian building that overlooked the Proof Battery and Atlantic Ocean. Completed in 1879, this stately building stood out among all the wooden structures and was often referred to as the "Brick House."

In the late 1880's, Congress increased funding for the Army's rearmament program, resulting in additional money for the Proving Ground. A narrow gauge railroad line was built in 1889 to facilitate the task of hauling new guns, carriages and other ordnance from the Army's bayside boat wharf to the Proof Battery. Four years later, a standard gauge railroad was built running the length of Sandy Hook that connected with the local commercial railroad.



*Officer's Quarters in 1937 after it was transferred to Fort Hancock, and became the post's Officers Club.*



*Gun Park, circa 1902*

---

## Re-arming America's Harbors

With these new guns, the Army started refortifying America's major harbors. During the 1890's, the Proving Ground shipped guns and related ordnance to all of the Army's harbor forts around the United States. This included Fort Hancock which was established on Sandy Hook in 1895. Two different branches of the Army now used

Sandy Hook for different missions. The Proving Ground continued to develop and test weapons and ordnance for the Army's use, while the Artillery Corps garrisoned Fort Hancock's gun batteries to protect New York Harbor from attack by sea.

---

## A New Proof Battery Is Built

Fort Hancock's harbor defense mission now clashed with the Sandy Hook Proving Ground's testing activities. The Proof Battery and its facilities were in the line of fire of some of the fort's gun batteries. To solve this problem, the Artillery Corps asked the Ordnance Department to relocate its Proof Battery and facilities. In 1900, a new and expanded Proof Battery was built 300 yards down the beach to the south of the old Proof Battery.

The eastern end of the new Proof Battery was designed for test firing machine guns, field and siege guns, and howitzers. The largest guns, 14- inch caliber, were test fired at the west end of the battery. In the middle were mounted a variety of guns from 1- inch up to 12- inch caliber. A gantry crane on railroad tracks behind the battery mounted and removed the guns and carriages. Behind the Proof Battery were traverses: a line of six 12- foot thick concrete walls with arched niches for overhead

protection. When a gun was fired on the Proof Battery, the gun crew stood behind these walls in the niches in case the gun blew up during testing. From atop a 50- foot observation tower behind the traverses, ordnance personnel could easily observe artillery hits on targets down range and out to sea.

Railroad tracks led from the Proof Battery north into a "gun park." Newly arrived gun barrels, waiting to be tested, were stacked side by side on concrete walls called "gun skids." Storage buildings throughout the gun park held tons of artillery shells, powder, charges, fuses, primers, breech- block mechanisms and other ordnance equipment. The tracks continued into an area of storehouses and machine shops where civilian machinists and laborers performed repairs or modifications on all types of ordnance.

---

## The End of an Era

In 1906, the Proving Ground officially became a permanent installation. Buildings made of fireproof red brick were constructed from 1905 to 1909. Construction included a locomotive storage house, machine shops, storehouses, and a large enlisted men's barracks. The red brick distinguished the buildings of the Proving Ground from the buff-colored buildings of Fort Hancock.

Although the Sandy Hook Proving Ground range had become too short for most ordnance testing, it continued operations through the end of World

War I. The expansion of Fort Hancock's war-time defenses and garrison also encroached on the Proving Ground's firing range. From time to time, when shells burst on the range, fragments came close to hitting soldiers at or near their gun batteries or housing areas. After the war, the Sandy Hook Proving Ground closed and transferred its personnel and equipment to a new Proving Ground at Aberdeen, Maryland. The Ordnance Department left more than 100 structures at Sandy Hook that became part of Fort Hancock.

---

## The Remaining Legacy

Today, only 13 structures remain. These include the former Officers' Quarters, the enlisted mens barracks, machine shops, and the Proof Battery at North Beach. With the passing of time, the Proving Ground and its many contributions in the field of ordnance development was forgotten. The Proof Battery is empty and quiet now, but upon its gun platforms were tested the weapons

that defended America's harbors from 1901 through World War II. Other weapons developed here helped America win the Spanish- American War and World War I, which established the United States as a world power. These significant contributions to American and world history are the Sandy Hook Proving Ground's enduring legacy.

---

## For more information:

Sandy Hook, Gateway National Recreation Area, PO Box 530, Fort Hancock, NJ 07732

Web address: [www.nps.gov/gate](http://www.nps.gov/gate)

Text by: Tom Hoffman, Park Historian

**EXPERIENCE YOUR AMERICA**