

Fort Jefferson Then and Now

National Park Service
U.S. Department of the Interior

Dry Tortugas National Park



Rodman Cannon and Gun Platform



The six 15-inch Rodman smoothbore guns at Fort Jefferson were made by Cyrus Alger & Company in 1871. They were installed on the terreplein in 1873 as part of a 'modernization' of the fort's armament. Each gun weighs approximately 50,000 lbs. The guns were mounted on iron center-pintle carriages. The guns and the carriages were to be mounted on platforms of timber laid upon a bed of concrete. When the timbers arrived, however, they were poorly made and badly creosoted. To compensate for this, it appears that additional concrete was used to provide better support for these large guns. These efforts were unsuccessful, however, and by 1877 the wooden platforms were described as being in "an advanced stage of decay and . . . are worthless in consequence."

In the 1937 photograph the remains of the platform are visible in the foreground and the cannon is in the background, sitting directly on the sand. The visible part of the platform shows only the concrete support structure; the wood has rotted away. The 482nd Civil Engineers Squadron of the Homestead Air Reserve Base lifted all of the cannon, including this one, out of the sand to aid in their preservation. Over time, erosion on the terreplein covered up the remains of the original gun platform and it was 'lost'.

In December 2009, NPS archeologists excavated the platform to study it as a model for reconstructing a gun platform to support a new reproduction carriage. The 2010 photograph shows the cannon lifted onto blocks and the excavated platform in the foreground. Look for the exposed timbers near the tip of the cannon. An unexcavated portion of the platform continues under the cannon. The excavation provided information about the basic size and shape of the historic gun platform. One of the Rodman guns will be mounted on a full reproduction carriage in November 2010 as part of the park's 75th anniversary celebration.



Photograph of treated Rodman cannon and partial construction of the replicated gun platform.

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Front 4 Counterscarp and Wall Stabilization



Fort Jefferson has six fronts, referred to by numbers in a clock-wise manner. Front One is the south facing front where the sally port or entrance is located; Front Four is the northerly facing front. In both images looking northeast you see the counterscarp, more commonly referred to as the moat wall. The moat wall is the first line of defense against attacking enemies and the relentless action of the sea. Construction on the counterscarp began in 1849 and was not completed until 1873. The wet moat is roughly 70-feet wide. George Grant's image looking northeast down Front Four shows extensive damage to the counterscarp. Due to multiple breaches in the counterscarp sand has built up within the wet moat and created areas for brush to grow. On the scarp wall of the fort many of the lower embrasure openings still have the original iron Totten Shutter breast plates around the exterior openings. Also note the chimney and roof framing from the Officers' Quarters on the right peeking up above the terreplein level. Since 1937 the counterscarp has continually been damaged and continually been repaired. In this 2010 image the counterscarp is intact and the growth and sand have been removed, restoring the wet moat. The original Totten Shutter breast plates are no longer in place but all of Front Four has been recently stabilized through extensive masonry work. The NPS intends to replicate the historic breast plates and install them for interpretation as key identifying features of this fortification. The Officers' Quarters were removed in 1962. The second tier embrasure openings were never completed during the original construction of the fort. They are preserved in their incomplete state and are virtually identical in both images.

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Garden Key Harbor



In 1937 a man looks south out of a second tier embrasure opening at the busy Garden Key Harbor. Out in the harbor are two seaplanes and at the dock is the US Coast Guard vessel *Nemesis*. The original cut in the counterscarp wall visible in both images was constructed to allow the moat to flush in and out with the tides. Kelly Clark, the photographer looks out at the harbor in the 2010 images. Although not in this modern photograph, seaplanes still visit the park and land in the Garden Key Harbor daily. The motor vessel at the dock in the 2010 photograph is the NPS supply vessel Fort Jefferson. The M/V Fort Jefferson brings supplies to the fort and transports crew back and forth between Key West and the Dry Tortugas every couple of weeks. The dock construction today is very similar to that in 1937 except the extension finger pier is no longer in place. Today, the dock is being repaired once again to improve the visitors' experience. One other great comparison to make between the two photographs is the dramatic shift in the location of the shoreline. This is a great visual record of how the islands are constantly shifting and changing at the Dry Tortugas.

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Hot Shot Furnace



The hot shot furnace located within the parade ground of Fort Jefferson was originally constructed from 1862 to 1863. The Hot Shot Furnace would have been used to heat up solid projectiles to be fired at wooden ships. The Restoration of the Hot Shot Furnace began in May of 2001 and was completed in March of 2004 by NPS workers. In the 1937 photograph the coral concrete infill above the main furnace chamber is visible due to the missing roof structure, parts of the granite chimney cap are missing and the corroded iron tie rods are broken and have displaced many bricks on the sidewall. Behind the furnace to the left is the partially ruined Enlisted Men's Quarters. The 2010 photograph shows the completely restored hot shot furnace with a slate roof. The iron tie rods have been replicated with silicon bronze to withstand the elements and prevent corrosion and the brick work has been repaired using mostly salvaged bricks from the original Hot Shot. The Enlisted Men's Quarters was removed in 1962. The Large Powder Magazine is also visible behind and to the left of the Hot Shot Furnace in 2010 image. The magazine structure was built from 1861-1866.

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Parade Ground and Front One



The most noticeable difference between these two photographs is the foliage. The Gumbo Limbo trees in the bottom right of the 2010 image have matured along with the Buttonwoods and Seaside Mahoes located towards the center of the parade ground. The Garden Key Harbor Light located on top of the far bastion was constructed in 1876. This iron lighthouse is no longer an active aide to navigation but still illuminates each night. In 2009 the NPS restored historically accurate doors and shutters on this structure. In the 1937 photograph the Enlisted Men's Quarters is in ruins and visible in the background on the left side of the image. Along Front One on the right side of the image from 1937 the interior faces of the casemates on the first tier are all whitewashed and park housing and office space can be seen. A small portion of the Small Powder Magazine can be seen in the bottom left foreground of both photographs and in the 2010 image you can see the remnants of the historic pathway that is so visible in 1937.