

# Plum Tree Island (formerly PTI Range)

## Project Timeline

**1917** – The Department of Defense (DoD) acquired Plum Tree Island (PTI) to support operations at nearby Langley Air Force Base. Support operations included experimentation in bombing, photography, radio and telegraph, and testing of foreign aircraft.

**October to November 1933** – Construction/repair activities occurred on the PTI Range, which included the construction of board walks, several observation towers and the installation of 12 sets of foundations for machine gun targets. By July 1935, various types of targets were located on the property, such as a ship target, a concrete pier target, a 200-square yard target and a bombing practice target. Soon thereafter, the PTI Range transitioned to live bombing, gunnery and rocket firing. Munitions handling training also occurred on the PTI Range until 1959.

**1958** – Three children were seriously injured on the island, after ignoring no trespassing warning signs. They accidentally exploded a practice bomb that contained a black powder charge.

**June 1959** – The U.S. Air Force conducted a site clearance of PTI Range to include a visual surface inspection of all land above the high-water mark and the removal of all dangerous and/or explosive material reasonably possible to detect. Following the site clearance, it was recommended that all PTI Range land be retained permanently by the federal government and restricted to surface use only. Due to the inaccessible nature of most of the site, determination of the presence and clearance of sub-surface explosive hazards could not be completed.

**1959** – The National Aeronautics and Space Administration (NASA) began using the PTI Range area to test free-flight aircraft models and Vertical Take-Off and Landing airplanes.

**May 1971 to June 1972** – The PTI Range was declared excess by the U.S. Air Force and transferred to the Department of the Interior's Bureau of Fish and Wildlife for use as a wildlife refuge. Currently, the site is known as the Plum Tree Island National Wildlife Refuge: <http://www.fws.gov/northeast/plumtreeisland>

**1992** – The U.S. Army Corps of Engineers (USACE) completed an Inventory Project Report for the PTI Range. This report identified that the area was used by DoD as an Army Aviation Experimental Station and later as an Air Force Bombing and Gunnery Range. The Findings and Determination of Eligibility stated that the site consisted of 3,275.60 acres and that DoD used the site from 1917 to 1972. This report made PTI Range eligible for restoration under the Defense Environmental Restoration Program's Formerly Used Defense Sites (FUDS).

**1996** – The 1996 Archive Search Report included a description of previous investigations performed at PTI Range, a site description, the historical ordnance presence, site eligibility as a FUDS property, a visual site inspection, an evaluation of ordnance hazards, availability of site ordnance technical data and a description of other environmental hazards. The ASR concluded there is historical evidence indicating munitions and related materials remain at the property. The ASR also determined that the following munitions were used at the site: small arms, high explosive bombs, practice bombs, aerial rockets and aerial practice rockets.

**2004** – USACE completed a Supplemental Archive Search Report as part of the PTI Range inventory and further evaluated the munitions hazards associated with the property. Eight target areas were identified in the southern portion of the PTI Range. The Supplemental ASR included a summary of munitions associated with the PTI Range including the munitions type, dates the munitions were used and a risk assessment score for each sub-range, as well as the Range Complex.

**2004** – During a site visit in July, two PTI refuge staff members observed what appeared to be 40 unexploded ordnance (UXO) items in the intertidal zone scattered in the shallow waters along the southern portion of the refuge. USACE designated the area around the PTI National Wildlife Refuge a temporary Danger Zone due to the observed presence of UXO items. This designation prohibits anchoring or any other disturbance to the subsurface bottom. The temporary Danger Zone area covers the southern part of the old bombing range (from Bells Oyster Gut to Whalebone Island), where munitions and related materials are known to exist. This boundary extends into the water 300 feet from the shoreline or original boundary, whichever is greater, into the waters of Back River and the Chesapeake Bay.

**2005** – The U.S. Army Topographic Engineering Center completed a Historic Aerial Photographic Analysis of the former PTI Range. The analysis identified targets and structures located exclusively in the southern portion of the PTI Range, as well as apparent impact crater areas located throughout PTI.

**2006** – USACE conducted a Site Investigation at the former PTI Range. The SI included site reconnaissance to identify surface munitions and related materials and soil, surface water and sediment sampling to assess potential contaminants. The report concluded that munitions and related materials are likely present at the Range, and that the media of concern that may be impacted by contaminants are surface soil, sediment and surface water. Therefore, the presence of munitions, related materials and contaminants pose a potential health risk to people and the surrounding ecosystem.

**2009** – Currently, USACE and their contractor, Shaw Environmental, Inc., are conducting a two-year, two-phase Remedial Investigation and Feasibility Study of the PTI refuge. The first phase began in January and runs through April. The second phase of fieldwork is scheduled for January through April 2010. These timeframes were chosen to avoid wildlife disturbance on the refuge.

The two-phase fieldwork consists of limited shoreline munitions clearance so the team can safely access and collect geophysical information within the interior of the site, using sub-surface metal detecting. The team will also survey selected site areas to reveal where munitions of concern are present in the subsurface, and collect and analyze environmental samples to determine if chemical contaminants have entered the environment. This process will help identify areas that may require future cleanup work.