

# FY 2015 Secretary of Defense Environmental Awards

## Picatinny Arsenal

### Army Nomination Cultural Resources – Small Installation

#### JUDGING CRITERIA



Program  
Management



Technical  
Merit



Orientation  
to Mission



Transferability



Stakeholder  
Interaction



Impact/  
Outcomes

#### Introduction

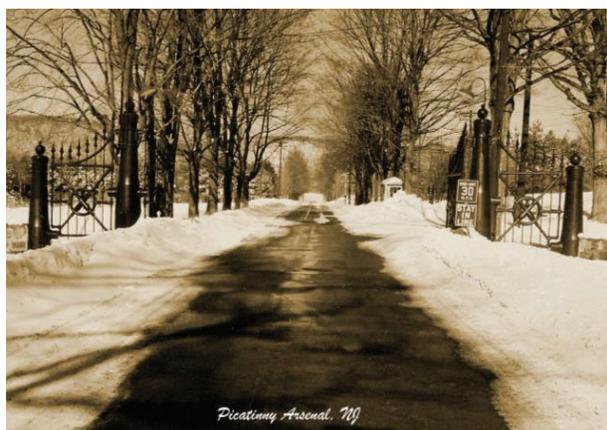
U.S. Army Garrison Picatinny Arsenal (USAG Picatinny) provides effective and efficient installation capabilities and services that support the Joint Center of Excellence for Armaments and Munitions enabling continued firepower dominance by the United States Military and sustaining a community in which Service Members, Families, and Civilians will thrive.

Nestled in the northern New Jersey Highlands of Morris County within Rockaway and Jefferson Township, Picatinny Arsenal's team of 5,000+ specializes in the research, development, acquisition and lifecycle management of advanced conventional weapon systems and advanced ammunition. Located about 35 miles west of New York City, Picatinny has more than 1,000 permanent structures, including over 60 laboratories, situated on the installation's 5,853 acres. As

one of the largest employers in Morris County, Picatinny employs about 3,900 civilians, approximately 93 military personnel and over 1,035 contractors.

Historically, during the Civil War, the need became apparent for a storage depot on the East Coast. Since Picatinny opened its Cannon Gate in 1880, it has seen various tenants, missions, and needs creating a unique, yet overlapping situation that is evidence to the U.S. military's advancement of weapons systems and munitions over time. First known as the U.S. Powder Depot, Picatinny provided storage space for large quantities of powder and explosives.

Picatinny is also known for being adjacent to the site of the 1926 explosion at the U.S. Navy's Lake Denmark Naval Ammunition Depot (which was transferred to the Army and became part of the Arsenal in 1960). On



View of a building during the 1926 explosion at the Lake Denmark Naval Ammunition Depot. *Photo courtesy of ARDEC Historian Files.*

July 10th, 1926 at 5:15pm, lightning struck Temporary Magazines 8 and 9, and Shell House No. 22 causing a series of fires and explosions. This event ultimately led to changes in safety and storage standards across all military branches that is still recognized today.



Overall, Picatinny's Cultural Resources Program (CRP) has documented over 1,100 structures for the National Register of Historic Places (NRHP) and identified 54 archaeological sites across the installation. Through the installation's recent consultation and implementation of Army Alternate Procedures to 36 CFR 800 (AAP), Picatinny has streamlined compliance with its Historic Property Component Plan (HPC) from 2013-2018 and has updated its Integrated Cultural Resources Management Plan (ICRMP) for 2014-2019.

### Program Summary

The CRP is located within the Environmental Affairs Division (EAD) of the Directorate of Public Works (DPW). As a group, Picatinny's EAD is known for its interactive Environmental Management System (EMS) which was established under ISO 14001. This EMS raises visibility of projects and work orders allowing early integration between environmental subject matter experts, such as the CRP, and installation tenants for effective project completion and continuing mission functionality. The CRP is managed by Mr. Jason J. Huggan who has been working at Picatinny since 2007. Mr. Huggan has worked in 15 states across the continental U.S. and has over 10 years experience in cultural resource management. He is a Registered Professional Archaeologist, and received his Master's Degree in Archaeology and Heritage from the University of Leicester, England, UK.



Picatinny's HPC for AAP compliance acts as part of the installation's ICRMP. These documents along with a programmatic agreement (PA) for the Real Property Master Plan (RPMP) and Facility Reduction Program (FRP) completed

“We commend Mr. Jason Huggan for his dedication to the process and for working closely with the New Jersey State Historic Preservation Officer and the many other interested parties toward developing a comprehensive and systemic document to oversee Section 106 compliance for undertakings associated with the Real Property Master Plan for Picatinny Arsenal.”

*Ms. Caroline Hall, Assistant Director to the Office of Federal Agency Programs, Advisory Council on Historic Preservation, 2010.*



in 2010 with subsequent amendments in 2011 and 2012, ensure the installation has streamlined compliance for cultural resource management. The implementation of the HPC Plan and the RPMP



FRP PA have saved Picatinny project approval time periods by reducing the need for consultation and has improved working relationships with the various Directorates and mission tenants.



Currently, 83 contributing properties across five historic districts and two individual structures have been deemed eligible for the NRHP through consultation with the New Jersey Historic Preservation Office (SHPO) at Picatinny Arsenal: the Business Administration and Research Historic District, the 600 Ordnance Testing Area Historic District, the Former Army Rocket Test Area (1500 Area) Historic District, and the Naval Air Rocket Test Station (NARTS) Test Areas D and E Historic Districts.

Included within Picatinny’s 54 identified archaeological sites, 22 are of Native American origin evidenced as campsites, lithic scatters, and rockshelters; while 32 are historic in nature ranging from 18th century iron forge remains, colonial farmsteads and homesteads, 19th

century mining sites, as well as auxiliary stone-walls and associated land tracts. Additionally, the CRP documents the early history of the Arsenal through the mapping of former test range facilities and military related resources, along with construction activities related



to the former Lake Denmark Naval Ammunition Depot. The archives and archaeological collections from these cultural resources are curated in a facility onsite.

Picatinny’s CRP also has management responsibilities over a Revolutionary War cemetery known locally as the Walton Burial Ground that is located on the Arsenal. During the summer of 2012 through 2013, the CRP worked



Monument at the Walton Burial Ground.



GIS technicians taking GPS points at the Walton Burial Ground. *Photo courtesy of the IGI&S Support Center and GIS Inc.*

with the Installation Geospatial Information & Services Support Center (IGI&S; located under contract to ACSIM) to photo document and GPS all of the gravestones at the cemetery. This project, along with the funding for an Ancestry.com account, is currently helping the CRP ascertain the potential identity of the 150+ individuals buried at the cemetery. The CRP is currently working with the Morristown Chapter of the Daughters of the American Revolution (DAR), the Historical Society of



Rockaway Township, and interested members of the public in performing historic research on the families that lived in the area and their nearby places of worship.



Finally in 2014, the CRP coordinated the installation of 15 new historic markers around the installation to provide awareness to the Picatinny workforce and worked the locations into the mission's wellness program for health credits. In relation to this and due to positive response, the CRP is currently researching additional locations around the installation for future markers to be placed.

### Accomplishments



With the consultation of the RPMP FRP PA in 2010 thru 2012, USAG Picatinny has since executed the following mitigation projects to allow the mission to continue effectively as planned:

- establishment of historic district viewsheds in GIS;
- institution of historic district signage throughout the referenced historic districts;
- documentation of an installation-wide Cultural Landscape Analysis (CLA) being performed in phases with the Army Corps of Engineers Construction Engineering Research Laboratory (CERL) researching the referenced



historic districts and the remainder of the installation, and the CRP separately documenting the landscape of the former Lake Denmark Naval Ammunition Depot;



Picatinny Storyboard Exhibit displayed at the Morristown National Historic Park from April to June 2014.

- coordination of a regional traveling museum exhibit displayed thus far with the Morris Co. Heritage Commission, Rockaway Township Library, Morristown National Historic Park, and Parsippany Library, with upcoming exhibition at the Sussex Co. Arts & Heritage Council, Morris Museum, Sussex Co. Cultural Affairs and Theater, and the Dover Historical Society;



- salvaged bricks from historic buildings for later reuse at similar buildings of the same era. This mitigation was part of a sustainability effort for Picatinny's Pollution Prevention Plan;
- and finally the CRP's most recognized historic preservation project to date – the creation of a Historic District Narrative website produced in lieu of Historic American Building Survey (HABS) and Historic Architectural Engineering Record (HAER) documentation allowing for historic structure demolition to occur seamlessly.



This website is located at <http://www.pica.army.mil/ead/cultural/picatinnyhistoricdistricts/>. It includes individual building pages with descriptive information, historical accounts of the structures, and tabs containing professional photo-documentation and full-size original building plans with pan and zoom functionality. Additionally, audio clips from interviews with current and former Picatinny employees add an

engaging human dimension, whether discussing the day-to-day process of testing propellants or the significance of the X-15 research aircraft in the NARTS Areas.

This particular project was completed two years ahead of time allowing for building demolition to occur for future mission development. This also allowed Picatinny to eliminate ongoing safety issues at abandoned facilities earlier than originally planned.



Through an innovative design, the project team – consisting of historians, cultural resource specialists, and a graphic designer – produced a customized website that serves as a model for cataloging, recording, and telling the stories of historic buildings on a government installation. It provides a means to digitally inventory all structures in the historic districts, fully document those slated for demolition, and present rich interpretive context. The website’s design lends itself to utilization as a planning tool as well as to future augmentation by the Army.



The website provides excellent public outreach and interpretive content, presenting research in an accessible and rich manner by drawing on a wide range of sources and images that make Picatinny’s rich history come alive. The web-based format provides cost savings compared to the preparation of conventional HABS/HAER documentation which would have been over \$250K. Moreover, HABS/HAER documents that had been prepared previously for Picatinny were incorporated into the website establishing a single clearinghouse providing public access to archival documents. In the end, the website is more serviceable both for Picatinny and the public than the limited-distribution technical reports required when removing infrastructure.

Picatinny received a 2013 New Jersey State Historic Preservation Award for this website, along with the company that designed it, The RBA Group, receiving a Distinguished Award from the New Jersey Council of Engineering Companies with Picatinny listed as their client.



Pictured are Garrison Commander LTC Jason Mackay, CSM Rosalba Dumont-Carrion, Jean Howson (The RBA Group), Jason Huggan (Picatinny Arsenal), Rob Tucher (The RBA Group), Rich Gramberg (The RBA Group), and Sophia Jones (Chairperson of the Historic Sites Council) as they receive the 2013 New Jersey State Historic Preservation Award.



Pictured are Andras Fekete (The RBA Group), Jason Huggan (Picatinny Arsenal), Jean Howson (The RBA Group), and John Maiorana (The RBA Group) as they receive the Distinguished Award from the New Jersey Council of Engineering Companies.

### Orientation to Mission



Functionality of the installation’s historic properties is critical to the mission’s research and development focus at USAG Picatinny. The CRP has worked extensively with mission tenants to perform adaptive reuse of facilities that are also recognized as historic properties with the SHPO. In regards to this, the CRP has established color standards on historic properties located within the 600 Ordnance Testing Area Historic District. The facilities located within this district were built



Before and after renovation photos of Building 617A.



just after World War I with the majority constructed to endure shock and blast effects from ordnance testing. Recently in 2013, Building 617A was reactivated for new storage and reuse with appropriate colors and roof materials that met the SHPO's standards for the Secretary of the Interior.

### Stakeholder Interaction



The RPMP FRP PA and AAP consultation had the involvement of the following consulting parties: NJ SHPO, Advisory Council on Historic Preservation, Delaware Nation of Oklahoma, Delaware Tribe of Indians, Absentee-Shawnee Tribe of Oklahoma, Shawnee Tribe, National Trust for Historic Preservation, New Jersey State Museum, Preservation New Jersey, Morris County Heritage Commission, Morris County Historical Society, Morris County Trust for

Historic Preservation, Roebling Chapter for the Society for Industrial Archaeology, Historical Society of Rockaway Township, Jefferson Township Historical Society, Mount Hope Historical Conservancy, Denville Historical Society, Mount Olive Township Historical Society and the Roxbury Historic Advisory Committee. These consulting parties are also given an annual project-by-project update for AAP compliance, along with a biennial update of large construction projects and FRP demolitions allowing for transparency of the installation's RPMP and overall Section 106 compliance.

Additionally, the CRP is asked by various local organizations to give between two to four presentations a year about the program, compliance and the installation's history.

In 2013, the CRP assisted the Morris County Heritage Commission with a Section 106 compliance event with the SHPO for local municipalities. The CRP's most recent presentation was given for Hanover Township's Landmark Commission during a forum on Morris Co. Iron History in which the Picatinny Storyboard exhibit (referenced above) was also displayed.

Finally, the CRP coordinates tours of the Arsenal, the Walton Burial Ground, and the Artifact Curation Room with the mission's historian, Dr. Patrick Owens, for the Picatinny workforce and new employees, along with members of the public and local organizations. Tours such as these are given throughout the year and annually for Earth Day and Picatinny Community Day. Memorial Day events are also hosted at the Walton Burial Ground for a wreath laying with the Morristown Chapter of the DAR in recognition of the Revolutionary War Soldiers buried there.

### Conclusion

As evidenced by its numerous accomplishments and achievements, Picatinny's CRP demonstrates dedication to balancing the installation's mission of research and development with the historic preservation of the Arsenal's cultural



Members of the Picatinny Environmental Restoration Advisory Board being led into the Walton Burial Ground for a tour of the cemetery.

resources. By utilizing the ICRMP through the implementation of AAP and the HPC Plan, along with the RPMP FRP PA, USAG Picatinny is able to have internal streamlined compliance of cultural resource management for projects and work orders that would have typically gone to the SHPO for consultation. The various



RPMP FRP PA mitigation projects listed, along with the AAP save the installation time and money and also allow for projects to be coordinated effectively now and for the immediate future.

The CRP's focus for the coming years include the coordination of additional historic building surveys for eligibility for the NRHP, Phase



Members of the Morristown Chapter of the DAR: Cathleen Hutchinson, Barbara Gagne, Kathy Cruger, Patricia Sanftner and Christine Smith during the 2014 Memorial Day Wreath Laying event at the Walton Burial Ground.

II archaeological evaluations of sites that may be impacted by future development, ongoing documentation of over 90 cultural resources that have been recorded across the Arsenal through historic research and GIS mapping, and the continuing investigation into the potential identity of the individuals buried at the Walton Burial Ground.

In conclusion, the CRP works diligently to ensure compliance and mission readiness by assuring that Picatinny Arsenal's unique cultural resources remain a priority to the workforce, the surrounding region, and for appreciation by future generations.