



2023 Secretary of the Army Environmental Awards



Cultural Resource Management – Individual

William C. Godby



L/R Joe Marlin and Glenn Moore, retired WSMR employees along with Bill Godby, watch as the 1948 T-4 tracking telescope is brought to the museum storage area. The telescope was recovered in a mitigation project by Bill Godby and has been restored and is now displayed at the WSMR museum missile park.

Introduction

White Sands Missile Range (WSMR) was established in 1945 as White Sands Proving Ground, referring to the adjacent White Sands National Park located within its boundary. In 1958 it became White Sands Missile Range. WSMR consists of more than 3,200 square miles, making it the second largest installation in the Department of Defense (DoD) and the largest overland testing facility in the DoD.

WSMR is both the site of the world’s first atomic bomb detonation, occurring on July 16, 1945, one week after WSPG was formally established, and the birthplace of America’s missile and space programs. WSMR is the site of the first successful launch of a V2 rocket. Today WSMR is home to the Army, Air Force and Navy as a world class tri-service test facility with testing opportunities and support found nowhere else in the world.

JUDGING CRITERIA

- Program Management
- Technical Merit
- Orientation to Mission
- Transferability
- Stakeholder Interaction
- Impact/Outcome

Background

Joining White Sands Missile Range in 2009, archaeologist Mr. William (Bill) Godby brings expertise in both archaeology and the built environment, leveraging cooperators and universities to achieve significant historic preservation successes at WSMR. Mr. Godby's roles and duties actively support the U.S. Army's Test and Evaluation Command (ATEC), in addition to the Navy, Air Force, NASA, and the Defense Threat Reduction Agency (DTRA) mission's at WSMR. He is subject matter expert for both archaeological issues and built environment, implementing the Integrated Cultural Resource Management Program (ICRMP) goals, objectives and standard operating procedures.



throughout his career with many publications and talks that have highlighted the Army's strong support for historic preservation and stewardship of historic properties. He has also partnered with the WSMR Museum's curator in supporting museum outreach education, in addition to identifying materials to accession in the archives collection. Mr. Godby has been a board member on the White Sands Missile Range Historical Foundation, which supports the museum.



Mr. Godby actively manages two National Historic Landmarks (NHL); the Trinity Site, location of the first atomic explosion and the V-2 Launch Complex, site of the first generation in rocket testing in the US. His efforts resulted in being recognized with the prestigious Heritage Preservation Award from the Governor of New Mexico for Historic Context development in 2018.



These comprehensive historic contexts will be especially valuable for future management efforts of historic properties at WSMR.



His proactive mission support includes active engagement with Army and Navy facility managers, ATEC mission test officers, the DTRA, as well as engineers, to ensure smooth integration of Section 106 requirements. He has developed a briefing for facility managers, in addition to a management manual that introduces them to federal historic preservation requirements and best practices.



Mr. Godby's efforts at community outreach and engagement are well represented

Archaeologist, Bill Godby, joined WSMR in 2009 after 8 years at Pohakuloa Training Area on the Big Island, Hawaii.

Built Environment Evaluations

A primary purpose and objective of the installation ICRMP is to support the mission and to remain in compliance with the National Historic Preservation Act (NHPA). The built environment at WSMR is exceptionally large, consisting of thousands of buildings and structures that support the most instrumented test range in the world. The management of this environment is complex, with a need to frequently demolish

and/or modify, driven by the Army’s present emphasis on modernization.

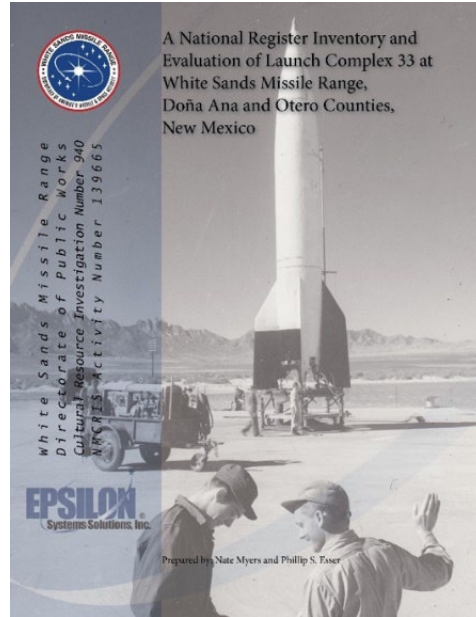


Presently Mr. Godby manages eight National Register of Historic Places eligible historic districts and two National Historic Landmarks (NHL) encompassing 384 historic properties (buildings and structures) that are either individually listed or contributing to a historic district.



Mr. Godby has been actively focusing on NRHP evaluations in support of both the Facilities Reduction Program (FRP) and mission infrastructure/growth since starting at WSMR in 2009.

During the award period he has completed eligibility determinations that include nine launch complexes, two special weapons assembly facilities, a former vertical static missile test stand, an uprange camp/cantonment, and the main cantonment facilities. He has submitted a total of 179 Historic Culture Property Inventory forms to the New Mexico State Historic Preservation Office (SHPO). All data from fieldwork is inputted into the WSMR Enterprise Geographic Information System (GIS) database and digital files are stored for easy online access. Additional efforts are made to correct real property databases and coding, resulting in greater accuracy for strategic planning. The accompanying reports have included comprehensive historic contexts, consolidating valuable archival photos and information. The reports are OPSEC’ed and made available to the public via the WSMR Museum website.



Launch Complex 33 is home to the first V-2 rocket launch and the birthplace of the Nike missile program. It is also a National Historic Landmark. This report is the most comprehensive document ever written on the LC33 NHL.

Public Outreach and the Cold War Tour



Additional goals of the ICRMP at WSMR are to protect and manage historic resources, encourage adaptive reuse and to facilitate public interpretation and education. In 2020 all of these goals came together with the establishment of the WSMR Cold War Tour. Mr. Godby envisioned the idea of the tour as SRM funding became available to restore and repair significant NRHP eligible structures near the post, recognizing the value in utilizing the resources for outreach and future education for employees as well as visitors. Recently WSMR began a Historic Immersion program to teach employees about the rich history. The Cold War tour became a showcase for the program in addition to tours to the Trinity site, both largely managed and maintained by Mr. Godby in partnership with the WSMR Museum..





In 2020 Mr. Godby provided the first Cold War tour to the Otero County Leadership group. The tour received great feedback on the PAO Facebook page. The picture features the 1945 Blockhouse.

Additional outreach efforts by Mr. Godby include archaeological tours for conferences such as this year's Jornada Research Institute and support of the twice a year Trinity Open houses, providing interpretation to over 2000 visitors at each open house.



Mr. Godby speaking to a group of visitors at McDonald Ranch for the Trinity Open House. The visitors are provided materials to review in addition to handouts about the McDonald Ranch.

Mission Support

In the achievement period Mr. Godby provided effective mission support in multiple ways. A clear challenge during this period was COVID-19, as it delayed and prohibited meetings and of course staff were lost to quarantine frequently. Two MOAs were executed supporting the built



environment and mission requirements, successfully overcoming challenges. The Special Weapons Assembly Building 4 (SWAF4), a facility supporting Precision Fires Rockets and Missile Systems, received a major facelift with MILCON funding. The missile assembly building (MAB) required significant modifications and was not previously evaluated. Through a cooperative agreement Mr. Godby executed a NRHP evaluation of the facility, which was determined individually eligible within a historic district, identified an adverse effect and completed SHPO consultation and a Memorandum of Agreement (MOA), in addition to executing required mitigations within 12 months. All aspects of the project, from initial planning meetings (most using a VTC or phone), to construction, went very smoothly. The design engineers and facility managers worked closely with Mr. Godby regarding window and door design replacements. Mitigations included creation of a MAB historic context, before and after photo documentation, historic photos and drawings. All Section 106 requirements were done both timely and inexpensively (utilizing an in-house contract) with close coordination with the New Mexico SHPO.



In 2020-21 Mr. Godby became involved in solving a longstanding water penetration problem with the historic Navy Blockhouse. The structure was constructed in 1945 and is largely identical to the Army Blockhouse at LC-33. The blockhouses are the oldest structures of their kind in the United States. Bill sought out advice from multiple specialists in concrete forensics and was determined to solve the problem. A plan to do imagery using ground penetrating radar to identify water penetrations was shelved when COVID-19 hit. After almost of year of research and discussions he identified a contractor that had the expertise and knowledge of product applications to solve the problem. The identified products were



carefully selected to not alter the historic fabric of the structure. The project included removal of previous applied exterior caulking, which had created a “spider web” on much of the building. Many of the cracks were superficial and did not need caulking, therefore the visual improvement was striking.

The timeline to complete the repair effort was essential as testing of the Navy’s Rail Gun was scheduled and rain was penetrating the ceiling and damaging the control room equipment. The application of multiple products to clean, remove previous caulking and waterproof were completely successful in resolving the problem with cost effective treatments. The Rail Gun tests were implemented with no issues and the Navy was especially appreciative for the support provided.



Work being performed at the 1945 Navy Blockhouse including pressure washing, removal of previous caulking, and application of multiple non-invasive products.

Repairs/Rehabilitations at the Trinity NHL

The most significant historic structure on WSMR would almost certainly be the Schmidt/McDonald Ranch house at the Trinity site. It is here that the plutonium core of The Gadget, the world’s first atomic bomb, was assembled and transported to Ground Zero for detonation on July 16, 1945.

The ranch was originally constructed by Franz Schmidt in 1913 but was vacated for military use in the early 1940s. The Manhattan project identified the house as perfect for assembling the plutonium core in 1945. After the test the house was largely left to decay until 1982 when restoration began under WSMR Commander Nile Fulwyler. The ongoing maintenance and care of the house has been a significant challenge due to its location, weather and age. Over the last 5 years Mr. Godby has obtained funding to execute many needed exterior and interior repairs to include stucco repair, installation of ice and water shield leak shield, while maintaining much of the original roofing, gutters and drainage, in addition to many flashing repairs. Most significantly, the masonry on the south facing cellar wall was seriously failing. He coordinated an exceptional and complex long-term repair, following the Secretary of Interior Standards for Rehabilitation, saving the wall from collapse and most certainly an adverse effect. The Army’s stewardship of the ranch is showcased during the Trinity Open House events.



Left illustrating serious masonry failure, right after reconstruction/repair, which included interior bracing and blocking support.

Additionally, a significant framed structure with the Trinity NHL, at the Base Camp, was severely damaged during a windstorm in early 2022. The structure served as a



photo lab for the scientists of the Manhattan Project in 1945 and is one of two remaining structures at Base Camp. Previously rebuilt in the 1990s, there were various structural deficiencies. Mr. Godby funded and completed repairs to the structure in approximately 90 days. Repairs included custom fabricated redwood siding to replace/match original deteriorated siding, replaced and improved window coverings, and improved interior framing support and drainage.



Severely damaged structure from windstorm at Trinity Base Camp NHL.



Repaired framed structure to include improved window treatments, siding replacements, and rebuilt/framed/reinforced roof.

Archaeological Resources



In the achievement period Mr. Godby managed several significant archaeological projects. WSMR contains over 8300 archaeological sites within its 3200 square



mile boundary. The first was the execution of a MOA and data recovery in support of the DTRA. The DTRA test bed at the Alt SHIST (Seismic Hardrock In-situ Source Test) site has long presented a challenge regarding existing archaeology and avoidance. It is a very important site for DTRA. In 2020 a MOA was executed for site mitigation and was completed in 2021, despite some challenges with COVID-19. The site is characterized as archaic period, and has provided very valuable data on lifeways, particularly lithic tool manufacture, not well represented in the archaeological record at WSMR for this period.

Mr. Godby initiated and managed multiple contract awards with the Cooperative Ecosystems Studies Units and the University of New Mexico's Office of Contract Archaeology (OCA) for the last 5 years. This cooperated project with OCA has been highly productive and cost effective, providing site identification/characterization, damage assessment and site protection on the WSMR tank trails.



OCA performing testing and damage assessment on WSMR Tank Trail. Siebert stakes protecting site boundaries can be seen on right of trail.

Legacy tank trails and service roads were constructed prior to NHPA at WSMR and have often bladed through archaeological sites. Godby has worked with OCA to provide limited testing that is characterizing these

damages, collecting valuable information and clearing these areas for continued use and maintenance. In the recording period Mr. Godby's projects with OCA have made several significant scientific contributions that will be useful to future archaeologists.

Perhaps most noteworthy is a seminal study on locally made prehistoric pottery called El Paso Polychrome to introduce temporally sensitive subtypes. These subtypes were named El Paso Polychrome Style 1, El Paso Polychrome Style 2, El Paso Polychrome Style 3a and El Paso Polychrome Style 3b.

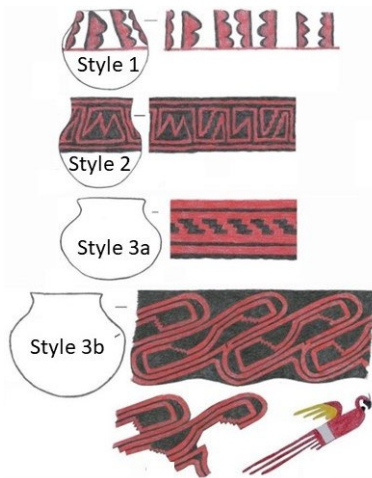


Illustration of new development at WSMR of El Paso Polychrome subtypes

WSMR funded efforts with OCA in identifying these newly defined subtypes of El Paso Polychrome will enable archaeologists to determine with greater accuracy when sites on WSMR were occupied. This is a marked improvement from merely relying on sizable rim sherds or the presence of imported diagnostic ceramic types alone. Whereas the latter provide the best estimates for occupation of sites only within a 250-300-year interval, the El Paso Polychrome subtypes tend to correlate with intervals of 50-100 years. This means that archaeologists can not only more precisely identify site components, but they can also determine whether sites were continuously occupied or periodically re-occupied during

the AD 1100-1500 time period. This is a critical improvement in using relative dating along with absolute dates, when available, to address the dynamics of site occupation and use, often a difficult task on deflated or dispersed sites.

Data Management

The tremendous size of the installation and the volume of resources presents a significant data management challenge for the CRM program. Mr. Godby utilizes multiple technologies in resource management, to streamline both the review of undertakings and the management of resources and data. He introduced the Past Perfect Museum software to manage records for the built environment. Those records include archival documents and pictures, SHPO consultations, NRHP evaluations and recordation forms, in addition to multimedia files. In the achievement period Mr. Godby added over 150 entries to the Past Perfect database, which is has been made available to future staff and researchers needing information on the built environment.

Having actively reviewed over 600 undertakings through the WSMR NEPA manager, Mr. Godby closely coordinates with internal stakeholders, Master Planning, ATEC and test engineers. The result is full support of the active WSMR mission schedule, in addition the regular maintenance and planned demolition. This support is a main objective of the WSMR ICRMP.

Mr. Godby also utilizes the WSMR Enterprise GIS in addition to contributing to data input. In the achievement period he has helped Master Planning resolve over 500 building identification issues via a project scope of work for in-house architectural support. All above efforts in data management provide effective, timely and comprehensive support of the mission requirements at WSMR.

