



2021 Secretary of Defense Environmental Awards Cultural Resources Management, Individual/Team Award

Each year since 1962, the Secretary of Defense has honored installations, teams, and individuals for outstanding achievements in Department of Defense (DoD) environmental programs. These accomplishments include outstanding conservation activities, innovative environmental practices, and partnerships that improve quality of life and promote efficiencies without compromising DoD's mission success. The 2021 Secretary of Defense Environmental Awards cycle encompasses an achievement period from October 1, 2018, through September 30, 2020 (Fiscal Years (FY) 2019-2020). A diverse panel of 47 judges with relevant expertise representing Federal and state agencies, academia, and the private sector evaluated all nominees to select one winner for each of the eight categories. These eight categories cover five subject areas including natural resources conservation, environmental quality, sustainability, environmental restoration, and cultural resources management.

About the Cultural Resources Management, Individual/Team Award

The Cultural Resources Management, Individual/Team award recognizes efforts by individuals or teams to promote effective cultural resources management through proactive stewardship of DoD's extensive and rich heritage assets. Through dynamic cultural resources management programs that partner with installation stakeholders, such as master planning, public works, and range management, DoD identifies and evaluates cultural resources that impact training, testing, and operational capabilities. Awards also showcase successful partnerships with American Indian and Alaska Native tribes, Native Hawaiian Organizations, states, and other historic preservation stakeholders to protect cultural resources in a manner that sustains mission readiness as responsible stewards of our collective heritage. The 2021 winner of the Cultural Resources Management, Individual/Team award is *Mr. Thomas E. Penders, Patrick Air Force Base, Florida*.

About Mr. Thomas E. Penders, Patrick Air Force Base, Florida

Mr. Thomas E. Penders is the Cultural Resources Manager (CRM) and Archaeologist for the 45th Space Wing. He supports mission-related activities at Cape Canaveral Air Force Station, Patrick Air Force Base, Malabar Transmitter Annex, and the Jonathan Dickinson Missile Tracking Annex. These installations cover over 19,000 acres and represent the most significant aspects of the U.S. space program's history and future. Mr. Penders is the manager for more than 500 cultural resources, including prehistoric and historical archaeological sites, missile sites, launch complexes, the Man in Space National Historic Landmark (NHL) District, World War II resources, cemeteries, a lighthouse, and historic missiles. He regularly conducts consultations with Federally recognized tribes; is significantly involved in National Environmental Policy Act planning activities, consultations, and documentation; and consistently works five years ahead of proposed construction projects to resolve cultural issues so they do not delay project designs or construction. **CLEARED**

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Mr. Thomas E. Penders, Cultural Resources Manager for the 45th Space Wing.

Major Accomplishments in FY 2019-2020

- Mr. Penders led six archaeological surveys, saving the 45th Space Wing an estimated \$480,000. His surveys paved the way for the use of lands for the development of critical defense and launch programs identified in the 45th Space Wing General Plan while complying with the National Historic Preservation Act (NHPA) and Archaeological Resources Protection Act.
- Mr. Penders was the first person to obtain approval from the Florida State Historic Preservation Office for laser scanning as an improved technique for Historic American Building Survey/Historic American Engineering Record recordation. To maximize available funds and efficiently comply with the NHPA, Mr. Penders initiated a six-year program to conduct high definition three-dimensional laser scanning of six NHL launch complexes as well as launch-related facilities slated for demolition or reuse. The scanning surveys are the most advanced technology available to preserve history, and they saved the Air Force \$80,000 per launch complex compared to the traditional recordation methods.
- Mr. Penders wrote the 45th Space Wing's Integrated Cultural Resources Management Plan (ICRMP) and conducted all annual reviews. In 2020, he completed the 5-year ICRMP update himself, saving \$85,000 in contract costs.
- Mr. Penders partners with the University of Central Florida Department of Anthropology to enable students to participate in the Cape Canaveral Archaeological Mitigation Project, a 10-year plan to assess and report on National Register of Historic Places eligible archaeological sites. This partnership allows students to gain experience conducting archaeological surveys, excavations, cemetery documentation, and artifact analysis, and saves the Air Force approximately \$300,000 each year.
- Mr. Penders obtained no-cost curation services through the National Park Service at Canaveral National Seashore via a memorandum of agreement for the past 5 years, saving the Air Force \$6,000 annually. During FY 2019-2020, Mr. Penders ensured the proper curation of over 300 artifacts.
- Mr. Penders developed an in-house program to improve eight historic cemeteries at Cape Canaveral Air Force Station that have suffered from years of neglect. He took a multi-disciplined approach to mark unmarked graves with permanent grave markers, replace fences, and repair broken markers. His efforts saved the Air Force \$100,000 and were greatly appreciated by the families of those buried in the cemeteries.



Mr. Penders in an excavation unit showing University of Central Florida Department of Anthropology students proper techniques.



A before and after image of a grave at a Cape Canaveral Air Force Station cemetery shows the dramatic effects of proper cleaning techniques.