

**INDIVIDUAL PROPERTY/DISTRICT  
MARYLAND HISTORICAL TRUST  
INTERNAL NR-ELIGIBILITY REVIEW FORM**

Property/District Name: Aurora Pulsed Radiation Simulatr Survey Number: pg:61-45

Project: Dismantling of Aurora Agency: F/Army

Site visit by MHT Staff:  no  yes Name L. Bowlin Date 2/95

Eligibility recommended  Eligibility **not** recommended

Criteria:  A  B  C  D Considerations:  A  B  C  D  E  F  G  None

Justification for decision: (Use continuation sheet if necessary and attach map)

Located in Building 500 at the Army Research Laboratory (ARL) in Adelphi, the Army has determined that the Aurora Pulsed Radiation Simulator (Aurora) is exceptionally significant for its association with the Cold War (1946-1989) and for its unique engineering qualities of its construction that reflect high technology research and development during the Cold War. Nuclear survivability was a key issue in military strategy during the Cold War. When a nuclear bomb explodes, the gamma rays and electromagnetic pulses impact all electrical equipment. The Aurora was developed to determine how military electrical hardware like satelites and strategic missile systems would react to the radiation. Aurora tests the effects of x-rays and gamma rays produced by thermonuclear blasts which allowed the Army to develop defense systems capable of surviving the radiation. Designed and developed in the late 1960s and early 70s, Aurora has been operating continuously since 1972. The Amry also believes that the scientific equipment is "an exceptional example of engineering design and construction, a feat that the Soviets were unable to duplicate due to the inability to fabricate certain key components critical to the operation of the simulator." The Army's determination was developed by Joseph Murphey, an architect who specializes in the evaluation of Cold War material culture for the Army and Air Force. The Trust has concurred with the Army's determination.

Aurora is the historic property. Building 500 is a non-descript concrete building constructed to shelter the simulator. It is not historic.

Documentation on the property/district is presented in: survey vertical files AND COMPLIANCE FILE "AURORA"

Prepared by: Joseph Murphey, AIA, Fort Worth COE District, and Army Research Laboratory

Lauren Bowlin 11/1/95  
Reviewer, Office of Preservation Services Date

NR program concurrence:  yes  no  not applicable  
Orlando Roberts 11-1-95  
Reviewer, NR program Date

*2/95*

**MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT**

**I. Geographic Region:**

- Eastern Shore (all Eastern Shore counties, and Cecil)
- Western Shore (Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
- Piedmont (Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
- Western Maryland (Allegany, Garrett and Washington)

**II. Chronological/Developmental Periods:**

- Paleo-Indian 10000-7500 B.C.
- Early Archaic 7500-6000 B.C.
- Middle Archaic 6000-4000 B.C.
- Late Archaic 4000-2000 B.C.
- Early Woodland 2000-500 B.C.
- Middle Woodland 500 B.C. - A.D. 900
- Late Woodland/Archaic A.D. 900-1600
- Contact and Settlement A.D. 1570-1750
- Rural Agrarian Intensification A.D. 1680-1815
- Agricultural-Industrial Transition A.D. 1815-1870
- Industrial/Urban Dominance A.D. 1870-1930
- Modern Period A.D. 1930-Present
- Unknown Period (  prehistoric  historic)

**III. Prehistoric Period Themes:**

- Subsistence
- Settlement
- Political
- Demographic
- Religion
- Technology
- Environmental Adaptation

**IV. Historic Period Themes:**

- Agriculture
- Architecture, Landscape Architecture, and Community Planning
- Economic (Commercial and Industrial)
- Government/Law
- Military
- Religion
- Social/Educational/Cultural
- Transportation

**V. Resource Type:**

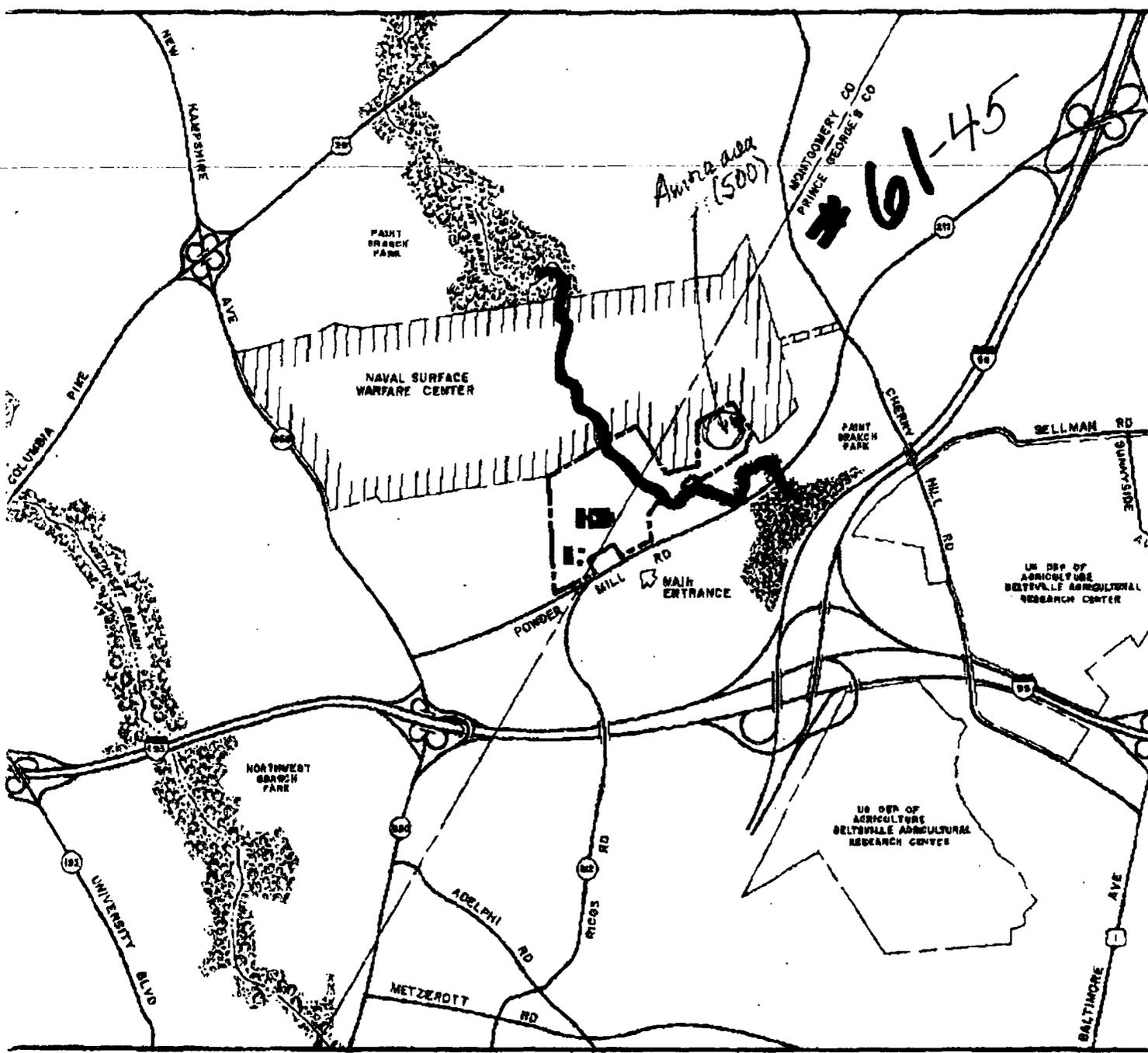
Category: structur

Historic Environment: urban

Historic Function(s) and Use(s): military technology/radiation simulator

Known Design Source: \_\_\_\_\_

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*Beltsville Quad.*

PG: 61 45

PG:61-45  
Aurora Pulsed Radiation Simulator  
Building 500, Army Research Laboratory, Adelphi  
Beltsville Quadrangle

