

**United States Department of the Interior  
National Park Service**

**National Register of Historic Places  
Continuation Sheet**

Section number \_\_\_\_\_ Page \_\_\_\_\_

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**SUPPLEMENTARY LISTING RECORD**

**NRIS Reference Number: 99001643**

**Date Listed: 01/21/00**

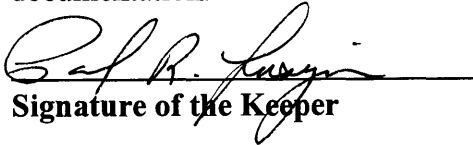
**Property Name: Missile Crawler Transporter Facilities**

**County: Brevard**

**State: FL**

**Multiple Name: John F. Kennedy Space Center MPS**

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This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

  
Signature of the Keeper

1/21/2000  
Date of Action

=====  
**Amended Items in Nomination:**

In Section 5, the Crawlers are classified as objects. A more appropriate classification is structure. An amendment is made to the nomination to change the two contributing objects to two contributing structures.

The nomination did not provide UTM coordinates for the Crawlers. Since the Crawlers can only move along the Crawlerway, one of the UTM points of the Crawlerway may be used for the Crawlers. An amendment is made to Section 10 that adds the following UTM coordinates:

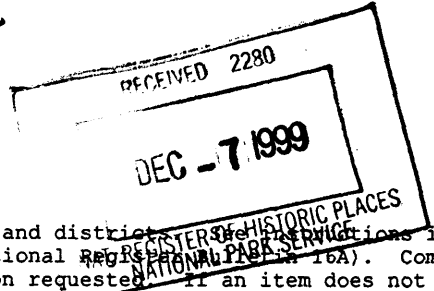
**Zone: 17; Easting: 534180; Northing: 3162000.** The acreage of property is also not given and an amendment is made to add **less than one acre** to Section 10.

This information was confirmed with Kenneth Kumor, NASA FPO.

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**DISTRIBUTION:**

- National Register property file**
- Nominating Authority (without nomination attachment)**

1/4/3



United States Department of the Interior  
National Park Service

National Register of Historic Places  
Registration Form

This form is for use in nominating or requesting for individual properties and districts. Complete the National Register of Historic Places Registration Form (National Register of Historic Places Form 10-900) in How to Complete the National Register of Historic Places Registration Form (National Register of Historic Places Form 10-900a). Complete each item by Marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPA Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Missile Crawler Transporter Facilities  
other names/site number Crawlers/8BR1688

2. Location

street & number NASA, John F. Kennedy Space Center not for publication  
city or town Kennedy Space Center vicinity  
state Florida code FL county Brevard code 009 zip code 32899

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this X nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets does not meet the National Register criteria. I recommend that this property be considered significant X nationally statewide locally. (See continuation sheet for additional comments.)

Kenneth M. Rumel, NASA FEDERAL PRESERVATION OFFICER; Nov. 19, 1999  
Signature of certifying official/Title Date

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
State of Federal agency and bureau

In my opinion, the property X meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

George W. Perry, SHPO 8/20/98  
Signature of certifying official/Title Date

Florida State Historic Preservation Office, Division of Historical Resources  
State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:  
 entered in the National Register. Paul R. Jones Signature of the Keeper 1/21/2000 Date of Action  
 See continuation sheet.  
 determined eligible for the National Register.  
 See continuation sheet.  
 determined not eligible for the National Register.  
 removed from the National Register.  
 other, (explain:)

Missile Crawler Transporter Facilities  
Name of Property

Brevard, FL  
County and State

**5. Classification**

Ownership of Property (Check as many boxes as apply.)	Category of Property (Check only one box.)	Number of Resources within Property (Do not include previously listed resources in the count.)	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input type="checkbox"/> public-local	<input type="checkbox"/> district	0	0 buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site	0	0 sites
<input checked="" type="checkbox"/> public-Federal	<input type="checkbox"/> structure	0	0 structures
	<input checked="" type="checkbox"/> object	2	0 objects
		2	0 Total

**Name of related multiple property listing**  
(Enter "N/A" if property is not part of a multiple property listing.)  
John F. Kennedy Space Center

**Number of contributing resources previously listed in the National Register**  
2

**6. Function or Use**

**Historic Functions**  
(Enter categories from instructions.)  
TRANSPORTATION: road-related  
& air-related  
DEFENSE: aerospace facility

**Current Functions**  
(Enter categories from instructions.)  
TRANSPORTATION: road-related  
& air-related  
DEFENSE: aerospace facility

**7. Description**

**Architectural Classification**  
(Enter categories from instructions.)  
OTHER: No Style

**Materials**  
(Enter categories from instructions.)  
foundation N/A  
walls N/A  
roofs N/A  
other  
other

**Narrative Description**

(Describe the historic and current condition of the property on one or more continuation sheets.)

Missile Crawler Transporter Facilities

Brevard, FL

Name of Property

County and State

**8. Statement of Significance**

**Applicable National Register Criteria**

(Mark "x" in one or more boxes for the criteria qualify the property for National Register Listing.)

**A** Property is associated with events that have made a significant contribution to the broad patterns of our history.

**B** Property is associated with the lives of persons significant in our past.

**C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents

the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

**D** Property has yielded, or is likely to yield, information important in prehistory or history.

**Criteria Considerations**

(Mark "x" in all the boxes that apply.)

**A** owned by a religious institution or used for religious purposes.

**B** removed from its original locations.

**C** a birthplace or grave.

**D** a cemetery.

**E** a reconstructed building, object or structure.

**F** a commemorative property.

**G** less than 50 years of age or achieved significance within the past 50 years.

**Areas of Significance**

(Enter categories from instructions.)

TRANSPORTATION

OTHER: SPACE EXPLORATION

ENGINEERING

**Period of Significance**

1965-1975

**Significant Dates**

1965

**Significant Person**

(Complete if Criterion B is marked above.)

N/A

**Cultural Affiliation**

N/A

**Architect/Builder**

Marion (Ohio) Power

Shovel Co.

**Narrative Statement of Significance**

(Explain the significance of the property on one or more continuation sheets.)

**9. Major Bibliographical References**

**Bibliography**

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

**Previous documentation on file (NPS):**

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # \_\_\_\_\_
- recorded by Historic American Engineering Record # \_\_\_\_\_

**Primary location of additional data:**

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

NASA: Kennedy Space Center

Missile Crawler Transporter Facilities Brevard, FL  
Name of Property County and State

**10. Geographical Data**

**Acreage of Property** N/A

**UTM Reference**

(Place additional UTM references on a continuation sheet.)

1	<u>N/A</u>	_____	_____	3	_____	_____	_____
	Zone	Easting	Northing		Zone	Easting	Northing
2	_____	_____	_____	4	_____	_____	_____
	Zone	Easting	Northing		Zone	Easting	Northing

**Verbal Boundary Description**

(Describe the boundaries of the property on a continuation sheet.)

**Boundary Justification**

(Explain why the boundaries were selected on a continuation sheet.)

**11. Form Prepared By**

name/title Daniel Delahaye and Kimberly Hinder, Architectural Historians  
organization Archaeological Consultants, Inc. date August 1996  
street & number P.O. Box 5103 telephone (941) 925-9906  
city or town Sarasota state FL zip code 34277

**Additional Documentation**

Submit the following items with the completed form:

**Continuation Sheets**

**Maps**

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

**Photographs**

**Representative black and white photographs** of the property.

**Additional items**

(Check with the SHPO or FPO for any additional items.)

**Property Owner**

(Complete this item at the request of SHPO or FPO.)

name \_\_\_\_\_  
street & number \_\_\_\_\_ telephone \_\_\_\_\_  
city or town \_\_\_\_\_ state \_\_\_\_\_ zip code \_\_\_\_\_

**Paperwork Reduction Act Statement:** This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as Amended (16 U.S.C. 470 et seq.).

**Estimated Burden Statement:** Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instruction, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Service Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork reductions Projects (1024-0018), Washington, DC 20503.

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### Narrative Description

#### Missile Crawler Transporter Facilities

Year Built: 1965

Apollo Era Function: Used to transport the Mobile Launch Umbilical Tower (LUT), including the Launch Vehicle, from the Vehicle Assembly Building (VAB) to Launch Pad A or B and return the LUT to the VAB after launch. Also used to transport the Mobile Service Structure (MSS) from its Park Area to and from the Pad.

Shuttle Era Function: Used to transport the Mobile Launcher Platform (MLP), including the Space Shuttle, from the VAB to Launch Pad A or B.

Apollo Era Technological Areas Supported: Transporting Launch Vehicle, LUT, and MSS between Park Areas, VAB and Pad.

Shuttle Era Technological Area Supported: Transporting MLP and Orbiter between Park Areas, VAB, and Pad (NASA 1967:10-82; Butowsky 1981:52).

There are two Missile Crawler Transporter Facilities (Crawlers) at KSC. Both are in active use in support of the Space Shuttle program. Each consists of a rectangular chassis supported through a suspension system by four dual-tread crawler trucks. Their overall length is 131 feet, and overall width is 114 feet; each unit weighs approximately 5.5 million pounds. The Crawlers are powered by self-contained diesel electric generator units. Electric motors in the Crawler trucks propel each vehicle. Electric motor-driven pumps provide hydraulic power for steering and suspension control. Air-conditioning and ventilation are provided where required. Control cabs are at each end. The control function of a cab depends on the direction of travel. The leading cab in the direction of travel has control of the vehicle (NASA 1967:10-82; Butowsky 1981:52).

Maximum speed of a Crawler is 2 mph when unloaded, 1 mph when loaded on a level grade, and 0.35 mph when fully loaded on a 5 percent grade. They have a 500-foot minimum turning radius and is capable of positioning the MLP on the facility support pedestals within 2 inches (Butowsky 1981:10-82; NASA 1967:52).

Each Crawler was originally used to transport the MSS and the combined LUT/Launch Vehicle in preparation for Apollo flights. The LUT traversed the Crawlerway from the VAB to the launch pad. The MSS was transported from its parking area to and from the launch pad. Each Crawler had the capability of lifting, transporting, and lowering the LUT or the MSS without the aid of auxiliary equipment. Each also supplied limited electrical power to the LUT

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and the MSS during transit. At the time of their construction in 1965 by the Marion (Ohio) Power Shovel Co., Crawlers were believed to be among the largest tracked vehicles in the world (Anon 1994:45; NASA 1967:10-81; Butowsky 1981: 52).

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### **Narrative Statement of Significance Missile Crawler Transporter Facilities**

#### Summary

The Crawlers contribute to the Historic Cultural Resources of the John F. Kennedy Space Center, Florida, under the historical context Apollo Program 1961-1975 and each of its three subcontexts under property type F.1, Resources Associated with Transportation. They are significant at the national level under NRHP Criterion A in the areas of space exploration and transportation. The Crawlers are also significant under Criterion C under engineering. Because these objects have achieved significance within the past 50 years and are of exceptional importance in the areas of space exploration, transportation, and engineering, Criteria Consideration G applies.

#### Significance

The Crawlers are unique and are used only as transporters for space vehicles. Their primary purpose was to transport the MSS and the combined LUT/Launch Vehicle from the VAB to the Launch Pad during the Apollo era. Each currently performs the same function by transporting the Mobile Launch Platform and Space Shuttle from the VAB to the Launch Pad. The Crawlers have substantially retained their integrity of design, materials, workmanship, feeling, setting, location, and association. The Crawlers are indispensable in the efforts of the United States to explore space.

The Crawlers were built in 1965 by the Marion (Ohio) Power Shovel Company for use in the Apollo missions. Because the Saturn family of rockets was so much heavier, a special vehicle was required to transport the new rockets along with the LUT and Launch Vehicle. NASA had the Crawlers created to fulfill this need. At the time of construction, the Crawlers were believed to be among the largest tracked vehicles in the world. As the only two in the United States, they are a unique mode of transportation which was integral to the success of the lunar missions and the present use of the Space Shuttle in the exploration of space (Anon 1994: 45).



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**Bibliography**

**Missile Crawler Transporter Facilities**

Anon.

1994        Facts: John F. Kennedy Space Center.

Butowsky, Dr. Harry A.

1981        Reconnaissance Survey: Man in Space. U.S. Department of the  
Interior, National Park Service, Washington, D.C. November.

National Aeronautics and Space Administration (NASA)

1967        Technical Facilities Catalog Volume II [NHB 8800.5 (II)]. March.

1974        Technical Facilities Catalog Volume II [NHB 8800.5A (II)].  
October.

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**Verbal Boundary Description**

**Missile Crawler Transporter Facilities**

The boundary consists of the objects themselves.

**Boundary Justification**

**Missile Crawler Transporter Facilities**

This includes all that was historically required for their function.

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**List of Photographs**

**Missile Crawler Transporter Facilities**

1. Missile Crawler Transporter Facility
2. Brevard County, Florida
3. Kennedy Space Center
4. January 1966
5. Kennedy Space Center
6. Crawler on Crawlerway, aerial (KSC-66-1450)
7. 1 of 3

1. Missile Crawler Transporter Facility
2. Brevard County, Florida
3. Daniel Delahaye & Kimberly Hinder
4. September 1996
5. Archaeological Consultants, Inc.
6. Crawler
7. 2 of 3

1. Missile Crawler Transporter Facility
2. Brevard County, Florida
3. Daniel Delahaye & Kimberly Hinder
4. September 1996
5. Archaeological Consultants, Inc.
6. Crawler
7. 3 of 3