

National Aeronautics and  
Space Administration  
**John F. Kennedy Space Center**  
Kennedy Space Center, FL 32899



Reply to Attn of:

TA-C3/File #2071A

June 4, 2001

NASA Headquarters  
Attn: JE/Ken Kumor  
Washington DC 20546-0001

Subject: Finding of No Significant Impact (FONSI) and  
Environmental Assessment (EA) for the Advanced  
Technology Development Center at Cape Canaveral  
Spaceport Launch Complex 20

Enclosed is one copy each of the subject documents for your  
files. Please address any comments or questions regarding this  
project to:

NASA Environmental Program Office  
Attn: John Shaffer  
Mail Code: TA-C3  
Kennedy Space Center, FL 32899  
Telephone Number: (321) 867-8456

Sincerely,

A handwritten signature in black ink, appearing to read "Mario Busacca". The signature is fluid and cursive, with a long horizontal stroke at the end.

Mario Busacca  
Lead, Planning and Special Projects

Enclosure

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**NOTICE 2001-KSC-01**

**National Environmental Policy Act; Finding of No Significant Impact;  
Advanced Technology Development Center, Cape Canaveral Spaceport, Florida**

**AGENCIES:** **Lead:** National Aeronautics and Space Administration (NASA)  
**Cooperating:** 45<sup>th</sup> Space Wing, U.S. Air Force

**ACTION:** Finding of No Significant Impact (FONSI)

**SUMMARY:** Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321 et seq.), the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), NASA's Procedural Provisions of NEPA (14 CFR Subpart 1216.3), Air Force Instructions 32-7061 (Environmental Impact Analysis Process (24 January 1995)), NASA and the Air Force have made a Finding of No Significant Impact (FONSI) with respect to NASA's construction of the Advanced Technology Development Center at Kennedy Space Center (KSC) and Cape Canaveral Air Force Station (CCAFS), Florida, hereafter to be collectively called Cape Canaveral Spaceport (CCS).

**DATE:** Published on TBD, 2001.  
Deadline for comments is TBD, 2001.

**RESPONSIBLE OFFICIALS:**

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Roy D. Bridges, Jr., Director  
John F. Kennedy Space Center

\_\_\_\_\_  
Date

**ADDRESS:** Kennedy Space Center, FL 32899

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Donald P. Pettit, Brigadier General  
Commander 45<sup>th</sup> Space Wing

\_\_\_\_\_  
Date

**ADDRESS:** Patrick Air Force Base, FL 32925-3343

**FOR FURTHER INFORMATION CONTACT:** Mario Busacca, Environmental Program Office, Mail Code TA-C3, John F. Kennedy Space Center, Kennedy Space Center, Florida 32899; Telephone: (321) 867-8456; Fax: (321) 867-8040; e-mail: mario.busacca-1@ksc.nasa.gov.

**SUPPLEMENTARY INFORMATION:** The environmental impact of the Proposed Action, construction of the Advanced Technology Development Center at Cape Canaveral Air Force Station Launch Complex 20, as well as an alternative action at Kennedy Space Center's Fire Training Area, and the No Action Alternative were investigated and reported in an Environmental Assessment (EA) titled "Environmental Assessment for the Advanced Technology Development Center at the Cape Canaveral Spaceport, Florida."

NASA and the Air Force have reviewed and determined that the EA adequately and accurately addresses the alternatives and the environmental impacts of the proposed action. The results of the EA are summarized below.

The EA addresses the proposed action to construct the Advanced Technology Development Center (ATDC) on approximately 28 acres of land within the fence line of existing Launch Complex 20 at Cape Canaveral Air Force Station (CCAFS), Florida. The proposed complex will include seven new facilities: a Liquid Oxygen (LOX) Storage area with a 56K gallon capacity capable of testing LOX cryogenic components and flowing LOX to customer provided equipment; a Liquid Hydrogen (LH2) Storage area with a 68K gallon capacity capable of testing LH2 cryogenic components, and flow LH2 to customer supplied equipment; a liquid Nitrogen (LN2) Storage Area with an 8K gallon capacity capable of testing LH2/LOX/LN2 cryogenic components, LN2 processes and systems, flowing LN2 to customer supplied equipment, and cryogenic densification; a Launch Mount capable of accommodating various launch structures and vehicle simulators, as well as testing ground to mobile launch platform (MLP) umbilical systems; a static test demonstrator called an Iron Rocket will be constructed on the launch platform which includes a 12K gallon LOX tank and 20K gallon LH2 tank which will be used for vehicle fuel testing and checkout of vehicle instrumentation systems; a Processing Building containing checkout and control systems capable of performing closed loop, command and control for the ATDC facilities as well as developing new processing techniques; and a Shop Building capable of supplying the necessary operations, maintenance, and logistical support for the ATDC.

In addition to the proposed action at CCAFS, one alternative location for the construction of the ATDC at KSC was also evaluated. Alternative 1 is located on Kennedy Space Center at the Fire Training Area (FTA). The No Action Alternative would result in not having any portion of the ATDC constructed at any site at the CCS.

The results of the assessment of environmental issues indicate that no significant impacts, that is those which are so small they are not measurable or will produce no discernable degradation to the environment, at the Proposed Action site are: increased loads to existing utilities; air quality impacts resulting from the construction of the facility (i.e., elevated dust levels); and surface water impacts due to construction of additional impervious area. Effects to biological resources due to removal of upland habitat within the 28 acres site are also considered minimal as these resources are previously disturbed and are distributed throughout the developed area of the existing launch complex. There is the potential for impacts to Threatened and Endangered species of sea turtles due to the placement and operation of new exterior lights adjacent beaches used by these sea turtles for nesting. However, these expected impacts will be mitigated by the development and implementation of a Light Management Plan for the new facilities and the impacts will be considered to be minimal. There are also Gopher Tortoises on the site that could be affected by construction activities. Those individuals that are present at the time of construction will be captured and moved to an adjacent site prior to construction start thus reducing the impacts to this species. Also present on habitat adjacent to the

site are Florida Scrub-jays. It is possible that some individuals of this species use open portions of the proposed site for feeding and other activities, but this was not noted during site visits. Therefore, any impacts to this species are considered minimal. There is also the potential for individuals of Southeastern beach mice to be present on the site, however, none were observed during site visits. Therefore, only minimal impacts may be expected for this species. A biological survey will be completed prior to construction and any species such as the southeastern beach mouse and gopher tortoise within the project boundary will be identified and relocated if they will be impacted. No impacts are expected to cultural resources, groundwater quality, or site geology. Impacts to the socioeconomic conditions of the region would be positive but would also be minimal.

Implementation at Alternative Site 1 would produce similar minimal effects as the Proposed Action. Impacts to biological resources would also be similar in that this site has been previously disturbed and the vegetation has been impacted by historical operations. This site is also considered an industrial site. Potential for impacts to Threatened and Endangered species is less at this site, as it is not in close proximity to the beach and therefore there would be no impacts to sea turtles or South Eastern Beach mice. However, this site is surrounded by wetlands and may have Florida Scrub-jays present in outlying areas. There are no cultural resources in or around this site, therefore no impacts would be expected to these types of resources. Nor would there be any impacts to groundwater quality or site geology. Impacts to the socioeconomic conditions of the region would be positive but would also be minimal. Implementation of this project at this site would have the potential for greater impacts to personnel safety in the KSC industrial areas due to hazardous operations associated with the project and the proximity of this site to those facilities.

The No Action Alternative would not require any new construction and would therefore not be expected to produce any environmental impacts other than those already associated with current operations. Impacts to the future operations of space launch infrastructure may be expected from this alternative if these test facilities are not constructed and operated at some other location as technologies required for further launch systems would not be adequately tested.

Federal agency activities that effect Florida's Coastal Zone are required by Section 37 of the Coastal Zone Management Act of 1972 (CZMA), 16 U.S. C. Section 1456(c), and implementing regulations 15 CFR Part 930, to be consistent with Florida's Coastal Management Program (FCMP). Under Florida's Statutes (Chapter 380.23), only those federal activities that significantly affect Florida's Coastal Zone will be evaluated for consistency with the FCMP. The Kennedy Space Center and the Cape Canaveral Air Force Station have both been specifically excluded from the Coastal Zone as part of Florida's Coastal Zone Management Plan. Therefore, only activities on these facilities that produce impacts offsite, would effect the Florida's Coastal Zone. Since this Proposed Action is not expected to have any significant offsite effects, it is determined to be consistent with the Coastal Zone Management Program.

On the basis of the analyses performed as part of the EA and reference material used in the investigation, NASA and the Air Force have concluded that implementation of the Proposed Action will not individually or cumulatively have a significant impact on the quality of the environment. Therefore, the preparation of an Environmental Impact Statement is not required and will not be prepared. Neither NASA nor the Air Force will take any final action or authorize construction activities prior to 30 days following the publication of the Notice of Availability of this FONSI.

FOR FURTHER INFORMATION CONTACT: Mario Busacca, Environmental Program Office, Mail Code TA-C3, John F. Kennedy Space Center, Kennedy Space Center, Florida 32899; Telephone (321) 867-8456.