

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**NOTICE OF AVAILABILITY 07-SSC-01**

**National Environmental Policy Act; Finding of No Significant Impact; Construction and Operation of the Constellation Program A-3 Test Stand**

**AGENCY:** National Aeronautics and Space Administration (NASA)

**ACTION:** Finding of No Significant Impact

**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), and NASA's policy and procedures (14 CFR Subpart 1216.3), NASA has made a Finding of No Significant Impact (FONSI) with respect to the proposed construction and operation of a Constellation Program A-3 Test Stand at John C. Stennis Space Center (SSC). The test stand would be used for testing J-2X rocket engines under vacuum conditions simulating high altitude operation.

**DATE:** Comments in response to this notice must be received in writing by NASA no later than June 4, 2007.

**ADDRESSES:** Comments should be addressed to Michael J. Blotzer, NASA Environmental Officer, Code RA02, Building 1100, Room 3030V, Stennis Space Center, MS 39529-6000. The Environmental Assessment (EA) for the Constellation Program A-3 Test Stand that supports this FONSI may be reviewed at the following locations:

<http://www.ssc.nasa.gov/environmental/docforms/eas/eas.html>

Maury Oceanographic Library, Building 1003, Stennis Space Center, MS 39529

Bay St. Louis - Hancock County Library, 312 Highway 90, Bay St. Louis, MS 39520

Kiln Public Library, 17065 Highway 603, Kiln, MS 39556

Margaret Reed Crosby Memorial Library, 900 Goodyear Blvd., Picayune, MS 39466

St. Tammany Parish Library, 555 Robert Blvd., Slidell, LA 70458

A limited number of copies of the EA are available by contacting Michael J. Blotzer, NASA Environmental Officer, at the address and/or telephone number herein indicated.

## **FOR FURTHER INFORMATION CONTACT:**

Michael J. Blotzer, NASA Environmental Officer, Code RA02, Building 1100, Room 3030V, Stennis Space Center, MS 39529-6000; Telephone (228) 688-2584.

**SUPPLEMENTARY INFORMATION:** NASA has determined that the EA for the construction and operation of the Constellation Program A-3 Test Stand represents an accurate and adequate analysis of the scope and level of associated environmental impacts. The EA is incorporated by reference in this FONSI.

NASA proposes to construct and operate a rocket engine test stand on a site 0.40 kilometers (0.25 miles) south of the SSC A-1 Test Stand in an area designated in the SSC Master Plan for Medium Propulsion System Testing. The construction site would be approximately 10 hectares (25 acres) located next to the SSC Access Canal.

The proposed test stand would be used to test rocket engines capable of 1.3 million newtons (300,000 pounds) thrust with a simulated altitude of approximately 30,480 meters (100,000 feet). To achieve the simulated altitude environment, chemical steam generators using isopropyl alcohol, Liquid Oxygen (LOX), and water would run for the duration of the test and would generate steam to reduce the pressure in the test cell and downstream of the engine. The propellants used to test the engines would be LOX and Liquid Hydrogen (LH). The test stand would include all systems required to run an engine test including LOX and LH run tanks and LOX and LH replenishment barges. The engine would be located in a vacuum test cell at the top of the exhaust duct and would feed into a diffuser which would direct the engine exhaust away from the test stand. Gaseous nitrogen, helium and hydrogen would be supplied to the test stand from existing onsite supply systems. The exhaust duct would be cooled by water supplied by the onsite High Pressure Industrial Water distribution system. All process water would be captured in a new site retention pond. A personnel support building and a test control center would be located near the test stand.

The most notable environmental impacts from the construction and operation of the proposed test stand would be air emissions from isopropyl alcohol and LOX chemical steam generators, wetlands disturbance, noise from engine testing, cooling water usage, storm water runoff and ground water usage.

This project would require a U.S. Army Corps of Engineers wetlands disturbance authorization, a Mississippi Department of Environmental Quality (MDEQ) Large Construction Storm Water Permit, a modification to the MDEQ National Pollutant Discharge Elimination System Permit, an MDEQ Prevention of Significant Deterioration air permit and subsequent modification to SSC's Title V Air Permit to Operate Air Emissions Equipment, and certification by the Mississippi Department of Marine Resources for the construction of mooring dolphins or any other work that would be necessary within the SSC Access Canal.

This project would not alter historic or cultural resources. No known threatened or endangered

species or critical habitats would be affected by the project. No other matters of potential environmental concern have been identified. On the basis of the EA and underlying reference documents, NASA has determined that the environmental impacts associated with this project will not individually or cumulatively have a significant effect on the quality of the environment; therefore, an environmental impact statement is not required.

*Richard J. Gilbrech*

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Richard J. Gilbrech, Ph.D.  
Center Director

*5/1/2007*

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Date