

This is a high-angle view at Launch Complex 39, Kennedy Space Center, showing the Apollo 12 (Spacecraft 108/Lunar Module 6/Saturn 507) space vehicle leaving the Vehicle Assembly Building on the way to Pad A. The Saturn V stack and its mobile launch tower are atop a huge crawler-transporter.



NASA 569-51308

Smithsonian WORKS TO SAVE JSC'S Saturn V

JOHNSON SPACE CENTER'S LANDMARK ROCKET
IS GETTING AN OVERDUE FACE-LIFT

by John Ira Petty



NASA JSC2003-E-56793

This aerial view features Johnson Space Center's Rocket Park, near NASA Parkway. An actual Apollo Saturn V launch vehicle (center frame), which was originally built to start a crew of astronauts on its way to the Moon, has been on permanent exhibit since 1977, along with models of the Little Joe and Mercury-Redstone rockets. The Western Heritage Pavilion is visible in the background.

The Saturn V on display at JSC, intended for Apollo 18, never got off the ground. It has long outlived its sisters that did take humans to the Moon between 1969 and 1972. That extended life, however, has brought some uninvited guests to the rocket such as mold and small animals.

Some external surfaces of the Saturn V have broken down and corrosion has affected internal and external structures. Excessive moisture and poor drainage throughout the rocket have led to mold and plant growth. Small animals have found shelter inside the irreplaceable landmark and are responsible for acidic debris and damage.

Now the Smithsonian Institution's National Air and Space Museum has begun preservation efforts on the 363-foot launch vehicle that should add many more years to the rocket's life.

The Saturn V, from the command module's escape tower to the nozzles of the five first-stage engines, has been on display outdoors at JSC since 1977. It formally became part of the Smithsonian collection in 1978 but remained at JSC.

A grant from the Save America's Treasures program of the National Park Service and the National Trust for Historic Preservation could provide \$1.25 million for the project. More than half the required dollar-for-dollar matching funds have been raised from the private sector. Allan Needell, Apollo curator at the National Air and Space Museum, hopes more donations will allow the Smithsonian to make full use of the Save America's Treasures grant.

continued on page 14

The Smithsonian has contracted with Conservation Solutions Inc. (CSI) of Washington, D.C., for initial steps of preservation: thoroughly cleaning all rocket stages; removing fluids from tanks and lines; proposing and testing state-of-the-art techniques for corrosion removal; surface preparation and repainting; and starting work to repair damaged components. The work began in March.

CSI also will provide a temporary temperature- and humidity-controlled building to protect the Saturn V during the preservation work and until a permanent indoor display site can be provided. The goal is to save the Saturn V and to restore it to its original appearance.

Smithsonian curators, conservators, advisors and NASA have been working to create a comprehensive plan to preserve and

protect the Saturn V at JSC for future generations. They have raised enough money to finish the plan's first phase. If the remaining matching funds can be raised, the job is scheduled for completion in December 2004.

The Saturn V was first used to carry humans during the Apollo 8 mission, which orbited the Moon in 1968. The rockets were used for all lunar landing missions and to carry Skylab into orbit in 1973.

Of the three surviving Saturn V launch vehicles, only the spacecraft at JSC is made entirely of rocket stages intended for flight. Three planned Moon flights, Apollo 18, 19 and 20, were canceled.



This point of view is that of the tram system that transports visitors from Space Center Houston onto the JSC site.



This close-up view features a single F-1 rocket engine (left), the first stage and the five F-1 engines on an actual Apollo Saturn V launch vehicle (partially out of frame), which was originally built to start a crew of astronauts on its way to the Moon. These have been on permanent exhibit since 1977 in Rocket Park.



This view features the Western Heritage Pavilion located near Rocket Park.

“
JSC and its contractor partners are working together to enhance our culture and create an environment that fosters better communications and mutual respect for all employees. The JSC Team, which consists of all of us – contractor and civil servant alike – will continue to build the relationships that support our legacy of technical excellence, teamwork and pride. It all starts with promoting better leadership and that's where we will attack first. We're all committed to making our organizations stronger through a united effort. Working together, we can bring about change!
 ”

Lt. Gen. Jefferson D. Howell Jr.
 Center Director

JSC Team

- JSC Senior Staff
- 4 W Solutions
- Aerospace Corporation
- Al-Razaq Computing Services
- Anadarko Industries
- ARES Corporation
- Barrios Technology
- Bastion Technologies
- Blackhawk Management Corporation
- Best Staff Services
- Boeing
- Booz Allen & Hamilton
- CandCNET Associates
- Cimarron
- Diamond Group
- DDMS Technologies
- Dynacs Engineering
- DynCorp
- ePro Enterprise Professionals
- EASI
- Futron
- GB Tech
- GeoControl Systems
- GHG Corporation
- Hamilton Sundstrand
- Hernandez Engineering
- Honeywell
- ILC Dover
- InDyne
- Kelsey-Seybold Clinic
- Lockheed-Martin Information Technology
- Lockheed-Martin MSOC
- Lockheed-Martin SEAT
- MRI Technologies
- Muniz Engineering
- Oceaneering
- Raytheon
- Rothe Joint Venture
- S & K Technologies
- SAIC
- Spacehab
- Synergos Solutions
- TechTrans International
- Tietronix Software
- Titan Lincom Corporation
- United Space Alliance
- W de Y Associates
- Wyle Labs