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Three flight-quality Viking Landers were built by the United States during the 1970's. Two of them are now on Mars, and the third has found a home in the UW EE building!

# Viking 3 Lands at UWEE

**NASA'S VIKING** Mission to Mars was composed of two spacecraft, Viking 1 and Viking 2, each consisting of an orbiter and a lander. The primary mission objectives were to obtain high-resolution images of the Martian surface, characterize the structure and composition of the atmosphere and surface, and to search for evidence of life. On July 20, 1976 the Viking 1 Lander separated from the Orbiter and touched down at Chryse Planitia (22.48° N, 49.97° W at -1.5 km elevation). Viking Lander 2 followed, and touched down at Utopia Planitia (47.97° N, 225.74° W, -3 km) on September 3, 1976.

The Viking program included three complete Viking Flight Systems, A, B, and C, the latter being the "Flight Spare" system. Two other sets of Lander bodies were built, but these were not "Flight Quality" (one of these, the Lander in the Smithsonian National Air and Space Museum, Washington, D.C., is the "Science Test Bed Lander"). Management decided not to complete the "Flight Spare" to save \$20- \$40 million, leaving it in an intermediate stage of construction and checkout. This lander body can be identified as the "Flight" lander body #3 by the "FC3" designation on its tag, by ID numbers (see photo), and by notes on body such as "remove before sterilization" at various places.

This lander was acquired by Jim Tillman, Viking Meteorology Science Team Member and UW Atmospheric Sciences Professor (in response to his daughter Rachel's interest in saving it for educational purposes) when he found it was on a surplus list. Otherwise, it would have been sold as scrap metal. During the past year it has been carefully restored by a team of volunteers, headed by Chris Vancil, Professor Tillman and Dr. Eckart Schmitt. Retired EE staff member John Schulz has constructed the display area. Restoration occurred in space provided by the AA department, until the display area was ready and secured. The display is still under development, and includes a web cam and interpretive material. Later this year, there will be a formal dedication and celebration.



VIKING "C" SPACECRAFT  
HERE IN THE EE DEPARTMENT.  
PHOTO BY JAMES GRANT TILLMAN.

Prior to the launch of the first Viking Spacecraft, there was a problem with an attitude control jet. While this minor problem was being fixed, the Orbiter's batteries were discharged. This caused the removal of the complete Viking A spacecraft assembly including lander, orbiter and inter-planetary propulsion and its replacement by the B spacecraft for the first launch. Had the Viking "C" spacecraft been completed, this lander would be at the Viking Lander 1 site on Mars!

THIS IMAGE WAS ACQUIRED AT THE VIKING LANDER 2 SITE WITH CAMERA NUMBER 2. THE ROUNDED ROCK IN THE CENTER FOREGROUND IS ABOUT 20 CENTIMETERS WIDE.  
PHOTO BY MARY A. DALE-BANISTER,  
WASHINGTON UNIVERSITY IN ST. LOUIS.  
INSET: SHIPPING TAG FOR THE VIKING 3.

