

Orbiter Space Flight Simulator (16 février 2005)

Shuttle Radar Topography Mission

STS-99/Endeavour



Un grand merci à:

- Martin Schweiger
- Dansteph et la communauté francophone d'Orbiter
- Vinka
- Dave Hopkins et Don Gallagher

Texture, mesh et fichier configuration spacecraft par no matter Février 2006.

INSTALLATION

Unrar in Orbiter base path.

Spacecraft2 from vinka (<http://users.swing.be/vinka/>) and Endeavour 3.8.2 required .

SRTM

STS-99/Endeavour-97th Shuttle Mission/14th Flight OV-105. Launch at Pad 39-A and landing at KSC rwy33.

CREW:

Kevin R. Kregel, Mission Commander

Dominic L. Pudwill Gorie, Pilot

Janet L. Kavandi, Mission Specialist

Janice E. Voss, Mission Specialist

Mamoru Mohri, Mission Specialist (NASDA)

Gerhard P.J. Thiele, Mission Specialist



PAYLOAD:

SRTM,EarthKAM

MISSION OBJECTIVES:

The Shuttle Radar Topography Mission (SRTM) is an international project spearheaded by the National Imagery and Mapping Agency and NASA, with participation of the German Aerospace Center DLR. Its objective is to obtain the most complete high-resolution digital topographic database of the Earth. SRTM consists of a specially modified radar system that will fly onboard the space shuttle during its 11-day mission. This radar system will gather data that will produce unrivaled 3-D images of the Earth's surface.

SRTM uses C-band and X-band interferometric synthetic aperture radars (IFSARs) to acquire topographic data of Earth's land mass (between 60°N and 56°S). It produces digital topographic map products which meet Interferometric Terrain Height Data (ITHD)-2 specifications (30 meter x 30 meter spatial sampling with 16 meter absolute vertical height accuracy, 10 meter relative vertical height accuracy and 20 meter absolute horizontal circular accuracy).

The result of the Shuttle Radar Topography Mission could be close to 1 trillion measurements of the Earth's topography. Besides contributing to the production of better maps, these measurements could lead to improved water drainage modeling, more realistic flight simulators, better locations for cell phone towers, and enhanced navigation safety.



Launch:

February 11, 2000. 12:43 pm EST (17:43 UTC) Launch window was 2 hours and 10 min.

Orbit:

Altitude: 233 km

Inclination: 57 degrees

Mission duration: 11 days

Vital Statistics:

Weight: 13,600 kg

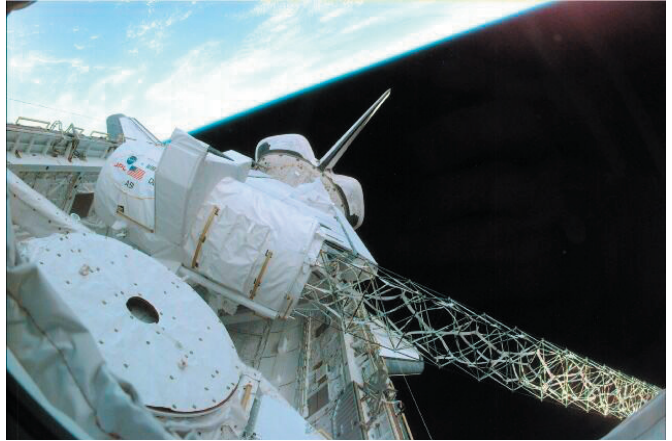
Size: Deployed mast length: 60 m

Power: 902800 watts

Orbits: 181

Duration: 11 days, 5 hours, 39 minutes 41 seconds.

Distance: 4 million 64 thousand miles



Landing:

KSC Runway 33 Feb. 22, 2000 6:23 p.m. EST. At 5pm EST, a go was given for the deorbit burn for KSC's 2nd landing opportunity and the deorbit burn occurred at 5:24 p.m. EST. Sonic booms heard at 6:18 p.m. EST at KSC 3.5 minutes before touchdown. Main Gear Touchdown at MET 11 days 5 hours 38 min (18:22:23:174 EST).

Nose Gear touchdown at MET 11 days 5 hours 39 minutes (18:22:34:569 EST).

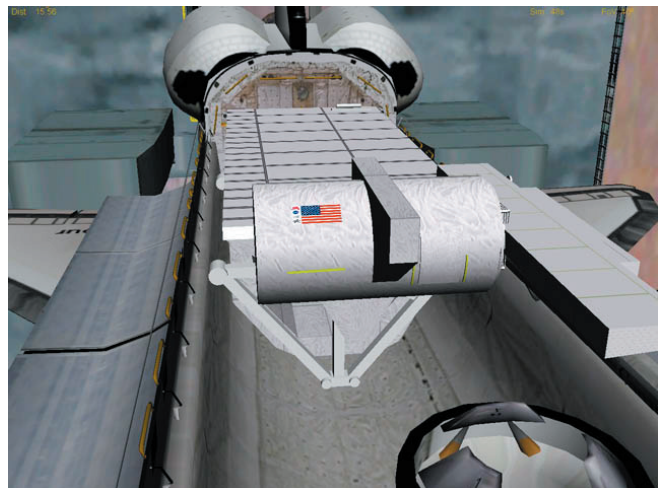
Wheel Stop at MET 11 days 5 hours 39 minutes 41 seconds (18:23:25:529 EST).

Utilisation-Touches

Use «K» key to deploy mast, wait for the completion then hit «G» to rotate. First k then g otherwise the mesh will be distorted! To store the module, first hit g then k. (it's because I set the mesh the wrong way, sorry!)

Scenarios:

- | | |
|-----------------|--|
| SRTM.scn : | Endeavour on LC-39B, 3 min prior to launch for Shuttle radar topography mission. |
| SRTM 0001.scn : | STS-99 just after ET separation. |
| SRTM 0002.scn : | STS-99 orbiting at approx. 233x233km, inc:57° from Equator. |
| SRTM 0003.scn : | SRTM beginning, mast deployed. |



About the Addon

The mesh is far from perfect and isn't really accurate (i've seen many 3D renderings of SRTM but all of them are different from size to parts) . A few details must be added and the outboard antenna is' not stored the proper way. I miss time to do this now !!!

POLYGON COUNT: 15002.

Bon vol.

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