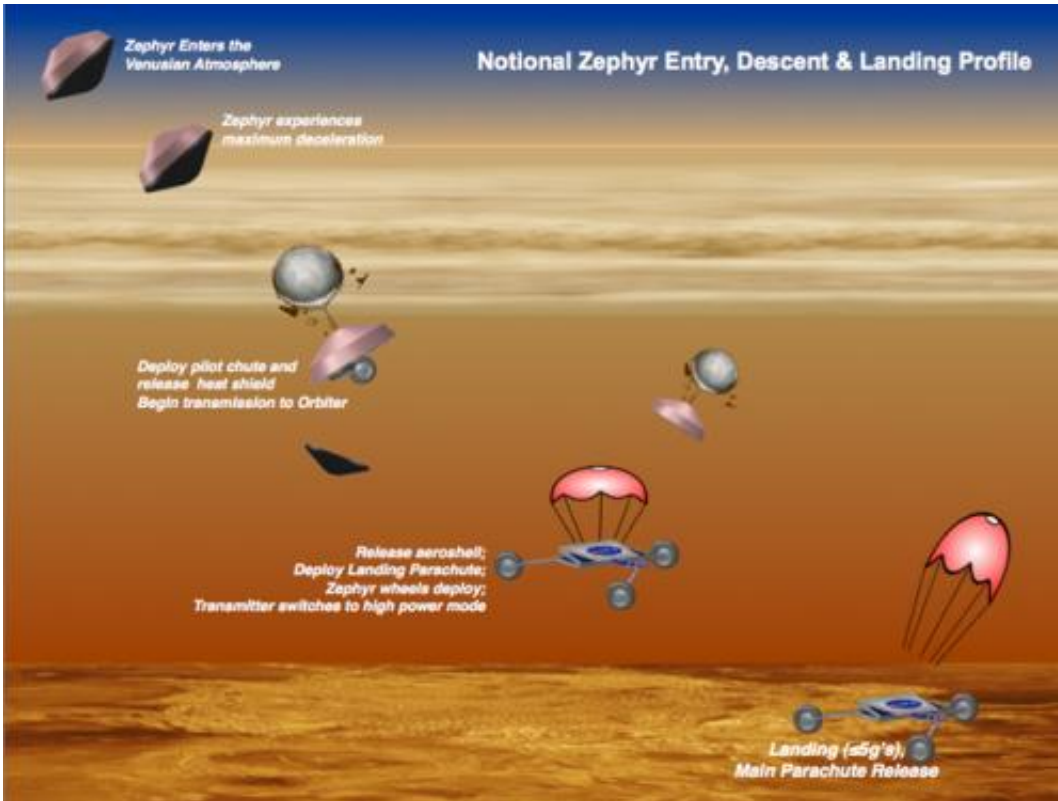


# 'Sail rover' could explore hellish Venus

August 23 2013, by Elizabeth Howell



A landing concept for a possible Venus windsurfing rover from the NASA Innovative Advanced Concepts office. Credit: NASA

A windsailing rover could use the high speeds and hot temperatures of Venus to a robotic explorer's advantage, according to an idea funded by NASA's Innovative Advanced Concepts program.

The rover would not only be able to move around Venus, but would also

have electronics inside able to withstand the temperatures of 450 degrees Celsius (840 degrees Fahrenheit).

The rover, which is nicknamed Zephyr, would spend most of its time on Venus doing analysis on the ground. Whenever the science team wants to move some distance, however, it would deploy a sail that could bring it across the surface. One vision sees it sailing for about 15 minutes a day for about a month.

"A sail rover would be extraordinary for Venus. The sail has only two moving parts-just to set the sail and set the steering position-and that doesn't require a lot of power. There's no power required to actually drive," stated Geoffrey Landis, who is with NASA's Glenn Research Center.

"The fundamental elements of a rover for Venus are not beyond the bounds of physics," Landis added. "We could survive the [furnace](#) of Venus if we can come up with an innovative concept for a rover that can move on extremely low power levels."

Landis has had many ideas for exploring Venus, including using a solar powered [airplane](#) and colonizing the planet using floating cities.



Artist's conception of the atmosphere of Venus. Credit: ESA

You can read more details about the windsurfing rover [here](#). If this gets to the mission phase, this would represent the first time that any robot landed on Venus since the Soviet Venera landers; the last attempt was in the 1980s.

Source: [Universe Today](#)

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