Straight up: SpaceX's Grasshopper rocket gains height and precision (w/ Video)

July 8 2013, by Nancy Owano

Grasshopper vehicle on 12 September 2012. Credit: Steve Jurvetson/Wikipedia.

(Phys.org) —California-based spacecraft company SpaceX has released

a video of the June 14 test of its Grasshopper rocket. The company said it soared over 1,000 feet during its latest trial run in June and it made a remarkably precise landing. In detail, the rocket flew 325 m, or 1066 feet, after liftoff in McGregor Texas, a rocket development facility. This breaks its previous record height of 840 feet.

The test also drew praise for precision in landing. The precision is attributed to new navigation sensors that measure distance between the ground and the vessel. "Most rockets are equipped with sensors to determine position, but these sensors are generally not accurate enough to accomplish the type of precision landing necessary with Grasshopper," according to the statement released with the video.

The Grasshopper is a 10-story Vertical Takeoff Vertical Landing (VTVL) vehicle, which SpaceX was directly controlling based on the sensor readings. "Grasshopper consists of a Falcon 9 rocket parts and a Merlin engine, four steel and aluminum landing legs with hydraulic dampers, and a steel support structure," according to the video statement.

The company was founded in 2002 by Elon Musk. Test facilities are in Texas.

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