

Blue Origin test to include deliberately failed crew capsule parachute deployment

May 30 2016, by Evan Gough



New Shepard's crew capsule is seen descending with its parachutes deployed. The capsule's landing is cushioned by firing rockets after the parachutes have done their job. Credit: Blue Origin

Blue Origin, the builder of the New Shepard re-usable rocket, has announced plans for the fourth flight of the rocket. With a recent successful launch and landing in their pocket, the company is



anticipating another similar result. But this time, something will be done differently.

This time around, New Shepard will be launched and landed normally, but the crew capsule will be tested with an intentionally failed parachute. Blue Origin is promising an "exciting demonstration," and in an email said they will be "demonstrating our ability to safely handle that failure scenario."

Though no date has yet been set for this gimped-parachute demonstration, we are looking forward to it.

In previous tests, the crew capsule performed maneuvers that characterized its aerodynamics and reduced what are called 'model uncertainties.' Greater predictability is what these <u>test</u> flights are designed to achieve. Obviously, too many question marks are not good.

As Jeff Bezos, head of Blue Origin, said in an email, "One of the fundamental tenets of Blue Origin is that the safest vehicle is one that is robust and well understood. Each successive mission affords us the opportunity to learn and improve our vehicles and their modeling."

The company also shared news of the construction of additional test cells at its facility in West Texas. These cells were announced in October, and now one of the cells has been commissioned. This cell "supports the development of the pre-burner start and ignition sequence timing" according to Bezos.

Bezos also touted the benefits of privately-funded endeavours, saying "...one of the many benefits of a privately funded engine development is that we can make and implement decisions quickly. We made the decision to build these two new test cells as a team in a 10 minute discussion." He added, "Less than three weeks later we were pouring



concrete and now we have an operating pressure fed test cell 7 months later."

It's clear that privately-funded initiatives can have more flexibility than governmental initiatives. They don't face the same budgetary wrangling that organizations like NASA do. But, they don't command the same resources that NASA does.

Companies like Blue Origin an SpaceX are very innovative and are leading the way in reusable rockets. If Blue Origin can make the crew capsule survivable in a failed parachute scenario, as the next test aims to do, then commercial space flight will benefit. Private trips to space, which are one of Blue Origin's goal, will also become more and more attainable.





A new test cell has been commissioned at the Blue Origin facility in Texas. Credit: Blue Origin





The New Shepard launching from its facility in West Texas. Credit: Blue Origin

Source: <u>Universe Today</u>

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