Watch Spaceship Two's first feathered flight

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On May 4, 2011 Virgin Galactic's SpaceShipTwo achieved a major milestone by flying for the first time using its "feathered" configuration, and the company has now released a close-up video of the flight. Feathering is designed to create drag and slow the ship down after it reenters the atmosphere from eventual suborbital flights taking tourists into space. This flight confirmed the feathering design should work.

Now we now have an entry vehicle – now we can come back from space," said Matt Stiemetze, Program Manager at Scaled Composites

SpaceShipTwo went airborne attached to WhiteKnightTwo (WK2) carrier aircraft, and after a 45 minute climb to 51,500 feet, SS2 was released from VMS Eve and established a stable glide profile before deploying. The feathering configuration is achieved by rotating the tail section of the vehicle upwards to a 65 degree angle to the fuselage. During the test flight, it remained in this configuration with the vehicle's body at a level pitch for approximately 1 minute and 15 seconds while descending, almost vertically, at around 15,500 feet per minute, slowed by the powerful shuttlecock-like drag created by the raised tail section. At around 33,500 feet the pilots reconfigured the spaceship to its normal glide mode and executed a smooth runway touchdown, approximately 11 minutes and 5 seconds after its release from VMS Eve.

On return trips from space, the tail will lower at around 70,000 feet.

Source: Universe Today