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IAF HUMAN SPACEFLIGHT SYMPOSIUM (B3)

Commercial Human Spaceflight Programs (2)

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SPACESHIPTWO: A SUBORBITAL VEHICLE FOR HUMAN SPACEFLIGHT AND MICROGRAVITY RESEARCH

Abstract

Virgin Galactic, a privately funded company based in the United States, is on track to become the world's first commercial spaceline. Virgin Galactic is currently developing and testing SpaceShipTwo, a reusable vehicle designed to reach space altitudes on frequent, affordable, and safe suborbital voyages. SpaceShipTwo will fly operational flights out of Spaceport America in New Mexico, USA, carrying either spaceflight participants or research payloads to space and back. SpaceShipTwo can be utilized as a platform for tourism, science, technology development, and education by a variety of commercial and government customers. Our current vehicle, named VSS Unity, is currently in flight test at our facilities in Mojave, CA, USA. VSS Unity is currently progressing through its flight test milestone on its way to powered flight. The last test flight was Unity's Seventh Glide flight completed January 11, 2017, in which the vehicle accelerated to Mach 0.9 which is around the maximum airspeed it can achieve without igniting the rocket motor. This presentation will provide a status update on our flight test progress as well as a technical overview of our human spaceflight platform, SpaceShipTwo.