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Paul G. Allen Announces Revolution in Space Transportation

Stratolaunch System to bring safer, less expensive, missions

Entrepreneur and philanthropist Paul G. Allen announced today that he and aerospace pioneer Burt Rutan have reunited to develop the next generation of space travel. Allen and Rutan, whose SpaceShipOne was the first privately-funded, manned rocket ship to fly beyond earth's atmosphere, are developing a revolutionary approach to space transportation: an air-launch system to provide orbital access to space with greater safety, cost-effectiveness and flexibility.

The space flight revolution Allen and Rutan pioneered in 2004 with SpaceShipOne now enters a new era. Only months after the last shuttle flight closed an important chapter in spaceflight, Allen is stepping in with an ambitious effort to continue America's drive for space.

"I have long dreamed about taking the next big step in private space flight after the success of SpaceShipOne – to offer a flexible, orbital space delivery system," Allen said. "We are at the dawn of radical change in the space launch industry. Stratolaunch Systems is pioneering an innovative solution that will revolutionize space travel."

Allen's new company, Stratolaunch Systems, will build a mobile launch system with three primary components:

- A carrier aircraft, developed by Scaled Composites, the aircraft manufacturer and assembler founded by Rutan. It will be the largest aircraft ever flown.
- A multi-stage booster, manufactured by Elon Musk's Space Exploration Technologies;
- A state-of-the-art mating and integration system allowing the carrier aircraft to safely carry a booster weighing up to 490,000 pounds. It will be built by Dynetics, a leader in the field of aerospace engineering.

Stratolaunch Systems will bring airport-like operations to the launch of commercial and government payloads and, eventually, human missions. Plans call for a first flight within five years. The air-launch-to-orbit system will mean lower costs, greater safety, and more flexibility and responsiveness than is possible today with ground-based systems. Stratolaunch's quick turnaround between launches will enable new orbital missions as well as break the logjam of missions queued up for launch facilities and a chance at space.

Rutan, who has joined Stratolaunch Systems as a board member, said he was thrilled to be back working with Allen. "Paul and I pioneered private space travel with SpaceShipOne, which led to Virgin Galactic's commercial suborbital SpaceShipTwo Program. Now, we will have the opportunity to extend that capability to orbit and beyond. Paul has proven himself a visionary

with the will, commitment and courage to continue pushing the boundaries of space technology. We are well aware of the challenges ahead, but we have put together an incredible research team that will draw inspiration from Paul's vision."

To lead the Stratolaunch Systems team, Allen picked a veteran NASA official with years of experience in engineering, management and human spaceflight. Stratolaunch Systems CEO and President Gary Wentz, a former chief engineer at NASA, said the system's design will revolutionize space travel.

Former NASA Administrator Mike Griffin, also a Stratolaunch board member, joined Allen and Rutan at a press conference in Seattle to announce the project. "We believe this technology has the potential to someday make spaceflight routine by removing many of the constraints associated with ground launched rockets," Griffin said. "Our system will also provide the flexibility to launch from a large variety of locations."

The Stratolaunch system will eventually have the capability of launching people into low earth orbit. But the company is taking a building block approach in development of the launch aircraft and booster, with initial efforts focused on unmanned payloads. Human flights will follow, after safety, reliability and operability are demonstrated.

The carrier aircraft will operate from a large airport/spaceport, such as Kennedy Space Center, and will be able to fly up to 1,300 nautical miles to the payload's launch point.

It will use six 747 engines, have a gross weight of more than 1.2 million pounds and a wingspan of more than 380 feet. For takeoff and landing, it will require a runway 12,000 feet long. Systems onboard the launch aircraft will conduct the countdown and firing of the booster and will monitor the health of the orbital payload.

The plane will be built in a Stratolaunch hangar which will soon be under construction at the Mojave Air and Space Port. It will be near where Scaled Composites built SpaceShipOne which won Allen and Scaled Composites the \$10-million Ansari X Prize in 2004 after three successful sub-orbital flights. Scaled Composites is a wholly owned subsidiary of Northrop Grumman.

"Scaled is all about achieving milestones and pursuing breakthroughs, and this project offers both – building the largest airplane in the world, and achieving the manufacturing breakthroughs that will enable Scaled to accomplish it. We are thrilled to be a part of this development program," said Scaled Composites President Doug Shane. "We anticipate significant hiring of engineering, manufacturing, and support staff in the near and medium term."

The multi-stage booster will be manufactured by California-based Space Exploration Technologies, one of the world's pre-eminent space transportation companies. "Paul Allen and Burt Rutan helped generate enormous interest in space with White Knight and SpaceShipOne," said SpaceX President Gwynne Shotwell. "There was no way we weren't going to be involved in their next great endeavor. We are very excited."

Dynetics will provide the mating and integration system and the systems engineering, integration, test and operations support for the entire air-launch system. The mating and integration system will be manufactured in Huntsville, Alabama in Dynetics' new 226,500 square foot prototyping facility. Dynetics has been a leader in aerospace engineering since 1974. "We are excited to play such a major role on this system. This is an ambitious project unlike any that has been undertaken and I am confident the Stratolaunch team has the experience and capabilities to accomplish the mission," said Dynetics Executive Vice President and Stratolaunch Board Member David King.

Stratolaunch Systems' corporate headquarters is located in Huntsville, Alabama.

Today's announcement was the first public word that Allen and Rutan were back in the space business. But space has long been on Allen's mind. In the close of his memoir, *Idea Man*, published earlier this year, he hinted at his plans, writing that he was "considering a new initiative with that magical contraption I never wearied of sketching as a boy: the rocket ship."

Note: Today's press conference is being webcast live at Stratolaunch.com.

For more information:

A broadcast quality video and other media material are available for download at www.Stratolaunch.com.

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