



# FACT SHEET COMPANY OVERVIEW



## **ABOUT VIRGIN GALACTIC** THE SPACELINE FOR EARTH

Virgin Galactic is the first commercial spaceline for Earth, pioneering human spaceflight for private individuals, researchers and professional astronauts, with its advanced air and space vehicles. The Company's proprietary spaceflight system is designed to connect the world to the wonder and awe created by space travel and to offer customers a transformative experience.

Virgin Galactic's entire offering — from the elegant and distinctive spaceflight system which takes off and lands on a runway, to the iconic week-long astronaut experience at the world's first purpose-built spaceport — has been designed to enrich and enhance the life-changing experience of space.

The Company is making the dream of space travel a reality, by delivering repeatable, regular, and reliable spaceflights with our existing vehicles. With experienced manufacturers already at work on the next generation vehicles, Virgin Galactic has what it needs to scale the business as a global spaceline over the long term.

#### What We Offer:

- Flying passengers to space as private astronauts
- Flying researchers to space to conduct experiments for scientific and educational purposes
- Professional astronaut training for private astronauts and researchers
- Flying autonomous scientific payloads

#### **Fast Facts:**

- Fewer than 700 humans have traveled above the Earth's atmosphere into space, and Virgin Galactic already has approx. 800 people in its Future Astronaut community.
- Galactic 06 will mark Virgin Galactic's:
  - o 11th spaceflight
  - o 6<sup>th</sup> commercial spaceflight
  - o 1st flight with four private astronauts
  - o 32<sup>nd</sup> human flown to space
  - o 19th private, commercial astronaut
- Our experienced team of pilots has **236** years of collective flight experience, and includes former test pilots for NASA, the Royal Air Force, the Royal Canadian Air Force, the U.S. Air Force, the Italian Air Force, and the U.S. Marine Corps.
- Virgin Galactic is headquartered in Orange County, California, with facilities in Mojave,
   California, Spaceport America, New Mexico, London, United Kingdom and Phoenix, Arizona.
- The Company has 800+ employees across the globe, as of January 8<sup>th</sup>, 2024.



## **OUR HISTORY**

Founded: 2004, by Sir Richard Branson

Publicly Traded: October 28, 2019

'SPCE' became the first publicly traded spaceflight company through a SPAC merger listing.

# **Previous & Upcoming Spaceflights**

First Spaceflight December 13, 2018	VSS Unity reached space for the first time from Mojave Air and Space Port in California.  Pilots: Mark Stucky [Commander] / CJ Sturckow
Second Spaceflight February 22, 2019	Virgin Galactic's first spaceflight with a crew member onboard in addition to two pilots, this flight carried research payloads from the NASA Flight Opportunities program.  Pilots: Dave Mackay [Commander] / Michael Masucci Astronaut Instructor: Beth Moses
'Unity 21' May 22, 2021	The first-ever spaceflight from Spaceport America in New Mexico, Unity 21 continued to test Virgin Galactic's full spaceflight system.  Pilots: Dave Mackay [Commander] / CJ Sturckow
'Unity 22' July 11, 2021	Virgin Galactic's first fully crewed spaceflight, Unity 22 carried three company employees and founder Sir Richard Branson to test the astronaut and research experience.  Pilots: Dave Mackay [Commander] / Michael Masucci Astronauts: Richard Branson (001), Beth Moses (002), Colin Bennett (003), Sirisha Bandla (004)
'Unity 25' May 25, 2023	The final assessment of the full spaceflight system and astronaut experience before commercial service began, Unity 25 carried four Virgin Galactic employees.  Pilots: Michael Masucci [Commander] / CJ Sturckow



	Astronauts: Beth Moses (002), Luke Mays (005), Christopher Huie (006), Jamila Gilbert (007)
'Galactic 01' July 29, 2023	Virgin Galactic's first commercial spaceflight with paying passengers, Galactic 01 carried 13 research payloads and three crew members from the Italian Air Force and the National Research Council of Italy, demonstrating the company's unique microgravity research offering.  Pilots: Michael Masucci [Commander] / Nicola Pecile Astronauts: Col. Walter Villadei (008), Lt. Col. Angelo Landolfi (009), Pantaleone Carlucci (010), Colin Bennett (003)
'Galactic 02' August 10, 2023	Virgin Galactic's second commercial spaceflight and its first with private passengers. Galactic 02 crew included Jon Goodwin, the first Olympian and second person with Parkinson's disease to go to space, and Keisha Schahaff and Anastatia Mayers, the first mother-daughter duo to go to space and first astronauts from the Caribbean. To date and by our count, Mayers was the youngest astronaut, Schahaff and Mayers were the sixth and seventh Black women to go to space, and the Galactic 02 crew was the most women flown in a single mission to space, including VSS Unity Pilot Kelly Latimer.  Pilots: CJ Sturckow [Commander] / Kelly Latimer  Astronauts: Jon Goodwin (011), Keisha Schahaff (012), Anastatia Mayers (013), Beth Moses (002)
'Galactic 03' September 8, 2023	Virgin Galactic's third commercial spaceflight and its second with private passengers.  Pilots: Nicola Pecile [Commander] / Michael Masucci Astronauts: Ken Baxter (014), Tim Nash (015), Adrian Reynard (016), Beth Moses (002)
'Galactic 04' October 6, 2023	Virgin Galactic's fourth commercial spaceflight and its third with private passengers.  Pilots: Kelly Latimer [Commander] / CJ Sturckow Astronauts: Ron Rosano (017), Trevor Beattie (018), Namira Salim (019), Beth Moses (002)
'Galactic 05' November 2, 2023	Virgin Galactic's fifth commercial spaceflight, a research mission carrying scientist Dr. Alan Stern and researcher Kellie Gerardi onboard, marking their



	maiden voyage to space where they will conduct human-tended research during the suborbital flight.
	Pilots: Michael Masucci [Commander] / Kelly Latimer Astronauts: Dr. Alan Stern (020), Kellie Gerardi (021), Ketty Maisonrouge (022), Colin Bennett (003)
'Galactic 06'	Virgin Galactic's sixth commercial spaceflight, its fourth with private passengers and its first with four private passengers on one flight.
Flight window opens	Pilots: CJ Sturckow [Commander] / Nicola Pecile
January 26, 2024	Private Astronauts: 023 from Ukraine and Las Vegas, United States, 024 from Texas, United States, 025 from Austria, 026 from California, United States



### **OUR VEHICLES**



## **Mothership VMS Eve**

Length: 77.7 feet

Wingspan: 140 feet

• Wing is cantilevered, pitching up in the center, adding strength and adding height for Unity to have adequate ground clearance.

Power: Four Pratt & Whitney turbo-fan engines.

- Power-weight ratio is so high that when Eve is not mated to Unity, it practically leaps off the ground.
- Eve is piloted from the right fuselage allowing the pilot in the left seat to have a clear view of Unity prior to and during release.
- Eve's left fuselage acts to balance the aircraft but does not carry passengers.
- Both fuselages are constructed of composite material and are identical, not just to each other, but to the fuselage of VSS Unity.
- This not only reduces cost in manufacturing and helps unify the aerodynamics during mated flight, but it keeps the environment consistent between the mothership and spaceship.





## **Spaceship VSS Unity**

Length: 60 feet

Wingspan: 43 feet

• Wing is cantilevered, pitching up in the center, adding strength and adding height for Unity to have adequate ground clearance.

#### Feather System:

- Wings / booms rotate upward, effectively folding the ship in half, creating a shuttlecock effect.
- This increases drag, slowing the ship down during reentry.
- The wing system then returns to its flying configuration, allowing Unity to glide to landing.



**Rocket Motor HRM 2000** 

Length: 15 feet

Diameter: 32 inches

Fuel: Hybrid

Thrust: 319,000+ newtons (approximately 71,000 pounds)

Trivia: Holds the Guinness Book record for most powerful hybrid rocket used in human flight.



## **OUR SPACEFLIGHT SYSTEM (SFS)**

Our unique and innovative Spaceflight System enables you and your fellow astronauts to enjoy the most thrilling and awe-inspiring journey of your life, in unparalleled comfort and ease.



#### **FLIGHT PATH**

01

#### MATED CLIMB

When together, the mothership and spaceship climb through the thickest parts of the atmosphere.

04

#### WEIGHTLESSNESS

Once in space, astronauts are free to unbuckle and float about the spacious cabin for several minutes in the effortless freedom of zero gravity.

07

#### **RE-ENTRY**

The spaceship's unique feathered configuration lets gravity do the work. We come back belly first, minimizing the build up of heat, controlling stability and reducing speed by aerodynamic drag.

02

#### RELEASE

Around 50,000 feet, with final safety checks complete, the mothership releases the spaceship. Shortly after, the spaceship's hybrid rocket motor ignites.

05

#### **FEATHER**

The spaceship's tailbooms rotate in preparation for re-entry. The pilots orientate the spaceship's seventeen cabin windows for breathtaking views of Earth.

0

#### **GLIDE**

Once back in the thickest parts of the Earth's atmosphere, the spaceship effortlessly glides back down to Spaceport America. 03

#### BOOST

Propelling vertically toward the stars, the spaceship quickly reaches speeds of 3x the speed of sound.

06

#### **APOGEE**

At nearly 300,000 feet, astronauts experience the majesty of space: a spectacular view of Earth, a precious blue jewel against the inky black of space.

09

#### LANDING

The spaceship touches down for a smooth runway landing, the same runway it took off from.