

4- GOING EXTREME: Do you think there is anything to expect from Space Tourism?

TEXTE a : How Space Tourism Will Change the World

We're not too far away from a future where anyone can travel to outer space. In fact, some space tourism companies will allow you to experience that final frontier right now—for a cost. With the rapid growth of space tourism, traveling to outer space could soon be as easy as booking a flight to Europe. Experts even say that in just a matter of years, this industry could change the world. “When aviation started [in the mid-1900s] it was for governments and those who could afford it,” says Jane Poynter, founder and co-CEO of space tourism company Space Perspective. “People then could not imagine the myriad ways air travel would be used to positively impact billions of people’s lives.” The same can be said for the future of space tourism.

Here’s everything you need to know about how space tourism works, the pros and cons of space travel, and what is expected to come for the space tourism industry.

What is space travel?

Space travel is defined as any air travel beyond 50 or 60 miles above sea level.(...) When booking space tours, companies offer either orbital or suborbital flights:

- **Orbital space travel** means the spacecraft is traveling around the planet with enough speed to avoid falling back to Earth. The International Space Station (ISS) is an example of orbital space travel.
- **Suborbital space travel** takes people into space and then returns to Earth at a slower speed than orbital travel. Most space tourism companies for private citizens currently offer suborbital spaceflights.

Why do people want to go to space?

There is one universal reason often cited by people who want to go to space. “Seeing the iconic thin blue line of our planet’s atmosphere against the stark blackness of space affects [astronauts] deeply,” Poynter says. Just imagine **all the things you can see from space**, including capturing incredible pictures of city lights from above.

“Astronauts describe it as personally transformational and say that when they return, they are compelled to get more involved in social and environmental causes. (...) Imagine thousands of people having that experience. It will have a ripple effect across society.”

Space tourism companies

Russia’s Soyuz spacecraft has been ferrying private citizens to the ISS since 2001, at a reported cost of \$90 million for a seat. Now, thanks to newly emerging U.S. space tourism companies, it will soon be possible to join the exclusive club of those who have traveled to space—that is, for anyone who can afford the still very steep ticket price.

SpaceX, founded by Elon Musk, made news when it carried two NASA astronauts to the ISS in 2020, as it was the first crewed mission to launch in the United States in nearly 10 years. SpaceX currently charters private orbital flights to the International Space Station in its Dragon spacecraft. It costs tens of millions of dollars for a seat on a flight.

Blue Origin, founded by Amazon’s Jeff Bezos, is the only space tourism company operating commercial suborbital flights. Blue Origin charged \$28 million for a ticket on its first flight with Jeff Bezos, but it does not advertise its current ticket prices.

Virgin Galactic is planning to start commercial operations next year. Reservations for Richard Branson’s Virgin Galactic flights start at \$450,000.

For those seeking a less expensive—albeit still very pricey—option, other companies offer zero-pressure balloons that will take tourists to an altitude of up to 20 miles, which is high enough to see the curvature of the Earth. Rides on Space Perspective’s balloon, called Spaceship Neptune, cost \$125,000 per seat. World View charges \$50,000 per seat. Flights are scheduled to launch in 2024, but has [not been approved by the FAA yet.

If you're not ready to blast through the Earth's upper atmosphere, you can still experience space travel with less risk. Companies like Zero G recreate the feeling of zero gravity on specially modified Boeing 727 flights. These experiences are also easier on the wallet, going for around \$8,200.

How to prep for a space flight

Taking a flight into space will require some training, but the programs are less rigorous than those faced by real astronauts. To prep for Virgin Galactic's three-hour trips, for example, tourists will be required to attend a multi-day training program with pilot briefings and spacesuit fittings. Trips on zero-pressure balloons will require a simple informational and safety course.

Pros and cons of space tourism

Among space enthusiasts and experts alike, space tourism opinions are varied.

Pros:

Job creation. Commercial space tourism has the potential to boost the economy by creating jobs and encouraging investment.

Advances in research. Spending more time in space could help solve some of the [most baffling mysteries about the universe](#).

Opportunity to experience space. "At Space Perspective, we want to enable more people than ever before to go to space to gaze into the unknown and imagine what could be, and to look down at Earth and gain a new perspective on home," Poynter says.

Cons:

It's expensive. Many people point out that the hefty price tag is one major downside to today's space travel. At hundreds of thousands of dollars per ticket, only the wealthiest travelers can afford a seat on a future spaceflight.

It may be bad for the environment. Scientists also worry that space travel could damage the planet and contribute to climate change. (...) However, Poynter argues that not all space travel is environmentally harmful. She notes that Space Perspective's Spaceship Neptune is the only zero-emissions, carbon-neutral spacecraft, and Space Perspective is a carbon-neutral company.

The future of space tourism

When it comes to the future of space tourism, the sky's the limit—literally. "We are at the very beginning of space travel," Poynter says. "We simply cannot imagine now the ways people will use spaceflight to improve life right here on Earth, close to home at first and increasingly farther out into our solar system."

Experts predict that travelers might want to stay and live in space, and many companies have launched plans to build properties and accommodations for space tourists to spend the night. Some of these space hotels will even have offices and research spaces for rent, opening up the possibility of working from space as well.

What's more, space tourism programs can also encourage further innovation and exploration of our solar system and beyond. Taking more people into space creates opportunities to invent new space technology, conduct groundbreaking research and establish new frontiers in galaxies beyond our own.

Brooke Nelson, Reader's Digest, Rd.com, Jun. 05, 2023

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4- GOING EXTREME: Considering the dangers it represent, do you think deep-sea tourism is worth developping?

TEXTE b :How underwater and deep-sea tourism became so popular

In recent years, a wave of underwater "bucket-list" experiences has sought to bring travellers in close contact with the ocean's depths.

More than 70% of our planet is covered by water, and in an age when so much on land has been explored and explained, a recent wave of underwater tourism is allowing travellers to venture deep into one of the Earth's last uncharted depths: the ocean.

A series of high-profile openings – such as the world's first underwater hotel, the Conrad Maldives Rangali Island; the world's largest underwater restaurant Under in Norway – have been increasingly luring wealthy travellers to explore new worlds under the ocean's surface, even if they lack the specialist training. But as rescuers race against time to recover the tourist submersible that went missing during a dive to the Titanic's wreck, it may be time to rethink the limits of some of these bucket-list experiences.

Underwater tourism is hardly a new concept. Jacques Cousteau invented general-use scuba gear in 1942, and the Professional Association of Diving Instructors, PADI, has issued 27 million diver certifications globally since 1967. (...) More recently, however, a shift in thinking has brought scuba-like adventure to people who are not skilled divers or swimmers or don't have the time or means to earn diving certification. Experiences such as Seawalker on Green Island in the Great Barrier Reef allow people to submerge while wearing a large glass helmet. Dressed in a protective suit, "divers" are gently lowered to the ocean floor, where they quite literally walk upright on the sand, connected by tubes that allow them to breathe normally while underwater.

Then there are submersible rides, which offer tours along reefs of some of the world's most interesting islands and coastal regions, from Hawaii to Mauritius. These can range from larger submarines for groups of tourists to super-luxurious private subs, such as the ones by Deepflight that operate in the Four Seasons Resort in the Maldives. These environmentally friendly and air-conditioned crafts, with space for two people plus a pilot, have individual viewing domes that allow for an exclusive up-and-close experience.

Although many believe these sleek submersibles may be the future of underwater exploration, since no scuba or swimming experience is necessary – plus the battery-operated and low-noise-level submersibles mean the experience is as sustainable as possible – they often carry a high price tag. The Deepflight, for example, costs \$1,500 per couple for an hour's excursion. Lovers Deep, a luxury submarine hotel that glides through the reefs around St Lucia – complete with its own private chef and butler – starts at \$150,000 a night.

And then there's OceanGate, the deep-sea exploration tour company whose 23,000lb submersible, Titan, is currently at the centre of an international search operation. When the BBC spoke to the company's CEO, Stockton Rush, in autumn 2022 ahead of one of its maiden voyages to the Titanic wreck site, he said that his goal was to make deep-sea exploration commercially viable for the masses, while positioning the Titanic as a "must-do dive". But with tickets costing \$250,000 for a chance to witness the world's most famous shipwreck up close, the experience has been far out of reach for most travellers.

"While underwater tourism invokes evocative images of deep-sea fantasies, these experiences are in reality few and far between," said Dr Hayley Stainton, UK-based tourism academic and author at Tourism Teacher. "They are also very expensive. I do think that there is a market for underwater tourism. I just believe that it will be limited to the wealthy and the few."

Patricia Rodiles Martinez, Institutional Development & PR Manager of Les Roches, who held the first Space and Underwater Tourism Universal Summit in 2019, holds another view. "As demand

increases over time, the costs associated will also come down, making it more and more accessible for all. This is what happened with the first airplanes, cruises and hotels."

Whether or not submersible rides will become mainstream, many of these innovative underwater experiences have an important secondary benefit: they're educating a new audience on the need to care for the ocean, which is struggling with threats such as coral bleaching due to global warming, over-fishing and pollution. (...) [Some] underwater projects are working hand in hand with conservationists and marine biologists to make the travel experience not only fun but educational, by raising awareness of the threat to the oceans and its habitats. While dive centres highlight the threats to their dive grounds, research centres, in particular on the Great Barrier Reef, are showcasing their research on topics such as coral bleaching, the effects of plastic waste and reef destruction. They're asking visitors to take away not only an enjoyable experience but vital knowledge, too.

Citizen science initiatives, from mapping seaweed species on the Washington State coast to tracking sharks and turtles on the Great Barrier Reef allow travellers and volunteers to help monitor the marine environment and potential tourism impacts, and provide critical data for research. They also have the side benefit of spreading the responsibility of protecting our underwater world to the entire community. (...)

In many ways, the idea behind underwater tourism is the same as expeditions to the Arctic, Amazon or other far-flung and environmentally fragile ecosystems: by visiting these hard-to-reach places, travellers may grasp the power and precariousness of our rapidly changing planet. But with so many historical, natural and artistic attractions under the seas, it is up to local governments and tour operators to ensure the sites are safely managed in an environmentally friendly and beneficial manner. The danger is that a site becomes too attractive and crowds will destroy the natural habitat. Tour boats, walkways and excursions need to be monitored and forced to adhere to strict guidelines. Even aware scuba divers can inadvertently harm the very sites they have come to enjoy. Studies into sustainable tourism growth by groups such as by Unesco have shown the solution lies with educating and empowering local governments and communities to oversee infrastructure developments, monitoring systems and creating strict local legislations.

Some projects are already in place, monitored internationally and designed to educate and bring local businesses on board. To protect the reefs through the education of scuba divers and snorkellers, for example, the Green Fins initiative has collated a number of internationally approved guidelines promoting a sustainable dive and snorkelling industry, which have been adopted by 11 countries and nearly 600 individual marine tourism companies in popular underwater tourism destinations such as Bali and Egypt since its inception in 2004.

"There are ways to develop underwater tourism in a sustainable manner that allows for positive impacts," Dr Stainton said. "For example, an aircraft that was submerged off the coast of Turkey has encouraged marine life to the area through the creation of an artificial reef.

As underwater tourism becomes more innovative and grows in popularity, we have a chance to develop new experiences and attractions that educate travellers about the deep sea. But it's imperative that we do so while prioritising sustainability and safety.

Ulrike Lemmin-Woolfrey, *BBC.com/ travel, 20th June 2023*

EDITOR'S NOTE (20/06/23): This article was **originally published in 2020**, and updated to reflect the news about the **disappearance of the Titanic submersible**.

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