

# Astronaut or AstroNOT?

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For as long as many of us can remember, kids have dreamed of becoming astronauts, dressing up in orange or white overalls with an empty fishbowl on their heads for Halloween or building model rockets and visiting the Kennedy Space Center in Florida. Becoming one of the elite astronauts has always been an elusive dream for children worldwide.

Now, billionaires, who have likely grown up with the same dream, are finding ways to go to space without going through the same grueling and extensive training that 'traditionally trained' astronauts go through. While to many this is an exciting development, it does leave many questions unanswered. One very important one is whether these new inductees into the 50-mile-high club would be considered astronauts or not.

## ***A Traditional Astronaut***

At the beginning of human spaceflight, the only way to become an astronaut was to go through specific training in the military as a pilot while also achieving a masters or doctorate in an engineering or science field. A 'traditionally trained' astronaut would then eventually rise through the ranks as a test pilot until they were selected as an astronaut candidate. Colonel Richard "Dick" Covey is one of the veterans of this process, having studied first at the Air Force Academy in Colorado Springs. He went on to receive a master's degree in Aeronautics and Astronautics from Purdue University, trained at an Air Force base, and flew in combat for many years until eventually becoming a test pilot. From there he applied for the NASA astronaut

program and was eventually accepted.<sup>1</sup> Various times he recalled that if you wanted to be an astronaut, this was the only way to go about it at the time.

As an astronaut, Covey flew 4 different space flights for a total of 646 hours in space, accomplishing tasks such as reorienting a satellite.<sup>2</sup> He is the epitome of a 'traditionally trained' astronaut. With many years and numerous flight hours logged, he was an integral part of every single one of those space flights.

## ***Modern Definitions of an Astronaut***

In recent years, the Federal Aviation Administration (FAA) released specific regulations for a way to define whether someone should be considered an astronaut. In 2004, the FAA stated that a person would be eligible to receive Astronaut Wings<sup>3</sup> if they met the requirements for flight crew qualifications and training and flew 50 miles above the surface of the Earth in an FAA-licensed vehicle. According to a statement made by the FAA, this was done to further the "FAA's mission to promote the safety of vehicles designed to carry humans."<sup>4</sup>

With the rapid advancement of private space enterprises in 2021, the FAA amended their definition to include one more provision for qualifying. The person in question must also have "[d]emonstrated activities during flight that were essential to public safety, or contributed to human space flight safety."<sup>5</sup> The goal has now evolved to "protect public safety during commercial space operations". With these updated requirements, people who simply pass the 50-mile

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<sup>1</sup> Jennifer Ross-Nazzari. "Richard O. Covey Oral History." NASA, November 1, 2006.

[https://historycollection.isc.nasa.gov/JSCHistoryPortal/history/oral\\_histories/CoveyRO/CoveyRO\\_11-1-06.htm](https://historycollection.isc.nasa.gov/JSCHistoryPortal/history/oral_histories/CoveyRO/CoveyRO_11-1-06.htm).

<sup>2</sup> "Biographical Data Sheet - RICHARD COVEY." NASA Johnson Space Center Oral History Project. Johnson Space Center, November 15, 2006. [https://historycollection.isc.nasa.gov/JSCHistoryPortal/history/oral\\_histories/CoveyRO/CoveyRO\\_Bio.pdf](https://historycollection.isc.nasa.gov/JSCHistoryPortal/history/oral_histories/CoveyRO/CoveyRO_Bio.pdf).

<sup>3</sup> Astronaut Wings, part of the Commercial Space Astronaut Wings Program, are ceremonial awards given by NASA, the US Military, or the FAA. While NASA and the U.S. Military can only give these awards to their employees, the FAA can give this award to whoever meets the qualifications or they can give Honorary Astronaut Wings to those who may have not reached the qualifications but have achieved an

exceptional feat related to commercial advancements in space. Jeff Foust. "FAA Revises Criteria for Commercial Astronaut Wings." *SpaceNews*, July 21, 2021.

<https://spacenews.com/faa-revises-criteria-for-commercial-astronaut-wings/>.

<sup>4</sup> Foust. "FAA Revises Criteria for Commercial Astronaut Wings."

<sup>5</sup> Wayne R Monteith. "Order 8800.2: FAA Commercial Space Astronaut Wings Program." *Federal Aviation Administration*. U.S. Department of Transportation, July 20, 2021.

[https://www.faa.gov/documentLibrary/media/Order/FAA\\_Order\\_8800.2.pdf](https://www.faa.gov/documentLibrary/media/Order/FAA_Order_8800.2.pdf).

height requirement, such as Jeff Bezos, will not be eligible for Astronaut Wings. There is however an option for an award of Honorary Astronaut Wings that is given at the discretion of the Associate Administrator for Commercial Space Transportation.<sup>6</sup>

Additionally, the FAA announced on Friday, December 10, 2021, that the Commercial Space Astronaut Wings program would be discontinued at the end of the year. Due to the increase in human spaceflight, the FAA is retiring the award of Astronaut Wings. Instead, they will be added to the FAA's official commercial astronaut list if they reach an altitude of 50 miles on an FAA-sanctioned launch. Notably, NASA Astronauts will still receive their pins.<sup>7</sup> This furthers the argument that government organizations want to limit the number of people who are considered astronauts—at least in the traditional sense. However, does it make sense to define an astronaut by whether or not you have received a pin from a government institution? Going forward, does this mean that anyone who isn't funded by a government institution isn't an astronaut?

## ***Professional Opinions***

While the FAA has set forth quantitative and qualitative requirements for how to receive Astronaut Wings in the past, there still isn't a decisive answer to what qualifies an individual as an astronaut. With the increasingly autonomous nature of spacecraft, crew members are less like pilots and more like "space flight attendants," as Colonel Covey joked during his presentation. This distinction between the actions of the crew members in relation to the actual piloting of the spacecraft now as opposed to at the start of the human space flight program is another important factor in who is and isn't an astronaut. Covey himself stated that if you wanted to be an astronaut today, you should just study something in a related field that you really enjoy and become an expert—a stark contrast to what he was told to do as a young man. If we were to only consider someone who pilots a spacecraft an astronaut, would this term become obsolete until space is as accessible to us as air?

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<sup>6</sup> Foust. "FAA Revises Criteria for Commercial Astronaut Wings."

<sup>7</sup> Marcia Dunn. "FAA: No More Commercial Astronaut Wings, Too Many Launching." *The Washington Post*. [theashingtonpost.com](https://www.washingtonpost.com/health/faa-no-more-commercial-astronaut-wings-too-many-launching/2021/12/10/ff673d22-59fb-11ec-8396-5552bef55c3c_story.html), December 10, 2021. [https://www.washingtonpost.com/health/faa-no-more-commercial-astronaut-wings-too-many-launching/2021/12/10/ff673d22-59fb-11ec-8396-5552bef55c3c\\_story.html](https://www.washingtonpost.com/health/faa-no-more-commercial-astronaut-wings-too-many-launching/2021/12/10/ff673d22-59fb-11ec-8396-5552bef55c3c_story.html).

Furthermore, is the goal of commercial space flight just an opportunity to claim the title of astronaut? Space historian and author Andrew Chaikin argues that the true goal in space tourism is the experience and that those wealthy enough to fly up into space with SpaceX, Blue Origin, or Virgin Galactic will still gain some sense of prestige even without the astronaut title. He also argues that as space flight becomes more and more common and accessible, all our terminology will eventually have to evolve.<sup>8</sup>



Figure 1: SpaceX is one of the main private corporations with a growing space presence. "SpaceX Dragon 16" by Astro Alex is licensed under [CC BY-SA 2.0](https://creativecommons.org/licenses/by-sa/2.0/). Retrieved from: <https://search.creativecommons.org/photos/d56fac42-2029-4926-9773-35d8b23ae6a1>

## ***Astronaut or Space Tourist***

Overall, who does and doesn't merit the title of astronaut is still up for debate and will continue to be until a relative equilibrium is reached for space travel as it has for air, land, and sea travel. As commercial space travel continues to expand and more passengers earn the privilege of experiencing the world from farther away, giving all of them the title of astronaut would actually take away from its distinction. Maybe it would be worth considering limiting the title to the pioneering heroes who inspired us to venture to the stars in the first place. Whether we limit the term or expand it further to the scientists and/or civilians who will go to space is up to us.

For now, the answer might be to refer to everyone else as Chaikin does: "Anybody who flies in space, whatever their capacity, is a space traveler. In years to come, people might go up to space not for science but just as a requirement to

<sup>8</sup> Denise Chow. "Who Gets to Be Called an Astronaut? It's Complicated." *NBCNews.com*. NBCUniversal News Group, July 24, 2021. <https://www.nbcnews.com/science/space/gets-called-astronaut-complicated-rcna1499>

do their job. Maybe it's a manager of an orbiting hotel. I don't know that you would call that person an astronaut. But you would call them a space traveler.”<sup>9</sup>

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<sup>9</sup> Chow. “Who Gets to Be Called an Astronaut? It's Complicated.”