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**When Montclair's Buzz Aldrin Left
New Jersey, He Took The 'High' Way**

When Montclair's Buzz Aldrin Left New Jersey, He Took the 'High' Way Instead of the Parkway



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Buzz Aldrin went to the moon aboard Apollo 11 and landed for a brief 20 hours on the surface of the moon. About a month later, he and the crew went on a round-the-world trip, meeting foreign leaders, kings and queens and prime ministers.

BORN TO PARENTS EDWIN EUGENE ALDRIN, SR. and Marian Moon [seriously!], Buzz Aldrin spent his childhood in Montclair, New Jersey, before becoming the second man ever to set foot on the lunar surface. In addition to his several spaceflights, 66 combat missions aboard an F-86 in Korea, appearances in many television and film productions (including a guest spot on *The Simpsons*), and generally being the guy that nobody can top at the high school reunion, Aldrin has served as Chairman of the National Space Society and was appointed by President Bush in 2002 to the Commission on the Future of the United States Aerospace Industry.

Just because Aldrin doesn't vacation on the moon anymore, doesn't mean he's not keeping busy. Aldrin has committed his efforts to the "space tourism" industry in the hope that more people will get to experience spaceflight. He also spends time giving speeches on the lecture circuit and maintaining his company, StarBuzz Enterprises LLC. Aldrin recently spoke with *COMMERCE* magazine about his career, his life and the business side of space travel.

COMMERCE: *The "space race" between the United States and the former Soviet Union was a major event in world history. How did you get involved in the space program?*

BUZZ ALDRIN: I was a fighter pilot in Germany, transitioning to nuclear weapon delivery when Sputnik went up. When I left Germany to go to MIT, both the Russians and the Americans had selected both astronauts and cosmonauts for possible early programs back in 1959. I was pretty involved in some of my MIT studies when we knew that there were Mercury suborbital flights being considered, and Alan Shepard flew less than a month later. From my perspective, I still had a year, year-and-a-half, to go finishing up my thesis but it was clear that there were going

to be needs [in order] to bring together spacecraft in orbit, and there were preliminary discussions of follow-up programs to the one-man Mercury spacecraft.

February of '62 is when John Glenn made the first American orbital flight, and by that time [NASA] had decided that we would go to the moon and return via the lunar orbit rendezvous—so that made my studies that much more significant. During that year, my good friend Ed White [from West Point and the track team, flying in Germany] left right about the time we were transitioning to nuclear weapons and went through a two-year Michigan master's program, and then the test pilot school. So when NASA wanted to add to the seven Mercury astronauts, Ed told me that he was going to apply for the astronaut program.

I decided that I would apply too, even though I had not elected to pursue the test pilot training career field. I wasn't selected and Ed was. But I applied in '63, and by that time, my MIT work was over and I was assigned to Los Angeles, working with experiments for the NASA Gemini program. I was eventually assigned to the field office in Houston in the summer of '63. In October of '63, it was announced that I was to be part of the 3rd group of 14 astronauts in the Gemini program.

Q. *You're probably most famous for your exploits in the Apollo program. What can you tell us about how that unfolded?*



Today, Buzz Aldrin delivers speeches on the lecture circuit and runs his company, StarBuzz Enterprises LLC.

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A. The Gemini XII mission—the last one in November of 1966—proved to be very successful and sort of cleared the way for the subsequent Apollo missions. Unfortunately, two months later, Ed White and Gus Grissom and Roger Chaffee were killed in the Apollo 1 fire. That set us back a year-and-a-half to two years in the development of the Apollo spacecraft. In the fall of '68, it looked like the Russians might send a cosmonaut around the moon and back without entering orbit because they



In January 1969, the crew was announced for Apollo 11—Neil Armstrong, Mike Collins and Buzz Aldrin (pictured).

could see that the progress of our space program was certainly catching up with them. And because of that possibility, NASA accelerated the mission of Apollo 8 in December of '68 to be a lunar orbit mission with Neil and I on the backup crew.

After the success of Apollo 8, we flew the lunar module in Earth orbit during the early winter of '69, and then flew Apollo 10 to [lunar orbit] in May of '69. In January 1969, the crew was announced for Apollo 11—Neil Armstrong, Mike Collins and myself—so we began to train for that mission. And, of course, you know the results of that—in July we launched, went to the moon rather successfully and landed July 20th for a brief 20

hours on the surface of the moon. We returned and landed in the ocean July 24th. About a month later we went on an around-the-world trip, meeting countries' leaders, kings and queens, prime ministers, and came back in time for the Apollo 12 second lunar landing.

Q. *It seems now the need for a space program is a challenging sell to the public. Could you discuss some of the problems encountered by the space program and its future?*

A. The benefits that were obtained from Apollo were quite significant in science, international relations, inspiration of engineers to enter the aerospace industry—and quite an inspiration to the youth of the country. So we, flushed with that success, embarked on an ambitious program to develop a reusable capability and a means of getting to Earth orbit with much larger payloads, and to eventually build a space station. I think we didn't capitalize enough on what we had developed in terms of the Skylab space station capability. We underfunded both the shuttle and the space station programs and expected too much of them. There were high technical achievements involved in the shuttle, but it was much later coming along, and it left us without flying Americans into space until almost 1981. Then the Challenger accident set us back—we went almost three years without flying, without making commitments to the space station.

The cost of developing the space station began to increase significantly. The Columbia accident came along and forced us and the administration to come up with a new program for the future. At the beginning of a very contentious election year in '04, the President committed the nation to a multi-decade, many billions-of-dollars program of terminating the space shuttle program and developing a new exploration capability of returning to the moon and preparatory steps toward developing procedures and techniques to be able to have missions to Mars. And that's where we are now, again facing a transition period of not being able to fly American astronauts into space with government programs between 2010 and 2015.

Q. *You mentioned Mars missions. Do you feel they are possible?*

A. There are many things that have to be developed before we're in a position to make some judgments about Mars programs. I'm hoping to help introduce a strategy of lunar landing that is more compatible with the ways we would be landing on Mars. During Apollo we carried the capability to go back up into orbit just prior to landing on the moon. Most of us don't believe we can possibly do that at Mars. We need to first land an unmanned ascent spacecraft and refuel it while it's on

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the surface of Mars, before a manned landing that could then launch to orbit at an appropriate time. So I think that we should first land an unmanned ascent spacecraft that's capable of being a lifeboat on the surface of the planet. We then land with a single stage lander. When it's time to get back up into space, we use the ascent vehicle, leaving the manned lander on the surface.

In 1985, in hopes of preparing better strategies for going back to the moon, I eventually developed a cycling orbits strategy that's strategically competitive as a better means of going to Mars. We can have interplanetary craft that we would use as ferries—cycling spaceships for smaller, interceptor taxi vehicles to intercept as it swings by Earth or swings by Mars. Now all of this is going to take a lot of time. Some more recent improvements in technology and concerns about energy supplies have re-introduced the concept of beaming energy from satellites in space that gather the energy from the sun and beam microwave energy back to the Earth. I think the present program of going to the moon, coupled with a strong research in solar power from space, may be best to do prior to sending human beings to Mars.

Q. *2008 is a presidential election year. How will that affect the space program?*

A. Whoever is in the White House determines the direction of the space program. So far in this century, during the first two terms of office following the Columbia accident, we've embarked on a progressive evolutionary space program that I hope will be supported and modified appropriately in the successive four-year direction by the Executive Branch. We need about four to six presidential terms to be able to compete in the world with missions to the moon and the clear intentions of the Russian and Asian nations to eventually embark on missions to Mars.

Q. *You're on the Astronaut Advisory Board of Space Adventures Ltd., a private space travel company. Where is that industry headed?*

A. I've been supporting all opportunities and options and activities that have made attempts to enhance the general public's knowledge of space capabilities. Over the last six to eight years, I've been [considering] the possibility of lottery-type methods so more people can avail themselves of zero-gravity flights in airplanes and suborbital flights with several of the different possible competitors, including Burt Rutan's Virgin Galactic.

These could also be offered in addition to the Russian orbital flights that several "tourists" have availed themselves of in the past. Right now, Space Adventures is advertising the availability of seats on the Russian Soyuz after the space station visit to go around the moon and back before landing. I hope to participate with one of the

major companies that may be able to put American spaceships into orbit with American rockets supplementing the NASA programs.

Q. *You've been traveling and lecturing for a while now. What audiences do you typically speak to, and what are your main points to impart to them?*

A. The audiences are very wide and diverse. Some are schools, universities, different companies that are assembling their key management personnel. I've spoken at different conferences—the Mars Society Conference for one, on the potential of cycling orbits and other strategies to get to Mars—and at local groups; just a wide variety of different experiences. And I attend different conferences and talk to people about the potential of more advanced methods of accomplishing space activities in the future.

Q. *Aside from your famous Apollo missions, you've done just about everything—you've got a doctorate from MIT, fought for our country in Korea, visited the North Pole, earned the Presidential Medal of Freedom...*

A. I was down to see the Titanic, too!

Q. *That was next on the list! So what are you most proud of?*

A. Well, maintaining a busy, active, creative, [industrious] way is what I was trained for all my life. I'm just continuing to apply that in a mostly satisfying way—both to myself, and to the service of the country. ■

