

Moonwalker assesses the new space buzz

35 years after Apollo 11, Buzz Aldrin looks to the future

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"The time for debating what our strategy is, is over," says Buzz Aldrin.

MOJAVE, Calif. - Thirty-five years after the Apollo 11 lunar landing, NASA is again serious about sending humans to the moon — and you'd think Apollo 11 astronaut Buzz Aldrin would be over the moon with enthusiasm. But instead, he's seriously worried that today's enthusiasm could lead to tomorrow's disappointment.

"For the next five years, all we're going to be doing is the same thing we've been doing all along, which is flying the shuttle and the space station until we finish completing it," he told MSNBC.com. "Now, in those five years, without exciting things happening, the public will begin to lose interest."

Aldrin is keenly aware that that's exactly what happened after the Apollo moon program, and he's determined not to let it happen again. That's why he's become, at the age of 74, a tireless booster for his own vision of future spaceflight — and easily the highest-profile astronaut from the Apollo moon program.

Aldrin's fame reached its apex on July 20, 1969, when he and Apollo 11

commander Neil Armstrong were the first men to land on the moon. Unlike Armstrong or Michael Collins, the third member of the Apollo 11 crew, Aldrin has kept a high public profile over the decades that followed.

His life on Earth has been almost as dramatic as his space exploits: He weathered alcoholism and a failed marriage, then remarried and put his life and career back on track. He keeps up his profile through speeches and writing projects, work with foundations and business ventures, even product endorsements.

Aldrin pulls no punches — literally: Back in 2002, he beat up a moon-conspiracy theorist who pestered him on a Los Angeles sidewalk.

He also pulls no punches when it comes to his views on the future course of human space exploration: Over the last few years, he has vigorously promoted plans to convert the space shuttle propulsion system into a type of rocket capable of reaching the moon, enlist the aid of the Chinese to upgrade the international space station, and build a new, improved space station more than halfway between Earth and the moon.

Last month, it was Aldrin who strode out onto the Mojave Airport's landing strip to welcome SpaceShipOne pilot Mike Melvill to the astronaut club. Just 12 hours before that [milestone spaceflight](#), Aldrin sat down for a one-on-one interview with MSNBC.com in a Mojave hotel conference room — not so much to look back at 1969 once again, but to look ahead to 2020.

'We have charted a course'

Aldrin voiced strong support for the Bush administration's [vision for future space exploration](#), which calls for returning Americans to the moon by 2020, and then moving on to Mars and other destinations.

"The time for debating what our strategy is, is over," said Aldrin, who himself served on an earlier presidential commission on the future of the aerospace industry. "We have charted a course. If we start debating whether that's what we want to do or not, I can guarantee we will end up doing nothing."

He acknowledged that the first phase of the plan would be mostly status quo for NASA — until the international space station is completed and the space shuttle can be phased out. During that transition, which is expected to last until 2010, suborbital space ventures such as SpaceShipOne could play a critical role in keeping the American public fired up about outer space, he said.

"Anything we can do in the near future that begins to stimulate the interest of people — seeing somebody down the street have an opportunity to go into space — buoys up the whole neighborhood," he said.

Making the next leap

But he doesn't expect the current crop of suborbital ventures to make the

giant leap to orbital spaceflight anytime soon — unless they are in league with government space programs. He pointed out that reaching orbit would require 25 times the energy put out by SpaceShipOne's rocket engine last month.

In his vision, the space shuttle program could well set the stage for the post-shuttle space age. Aldrin is a big advocate of beefing up the shuttle launch system with extra boosters, while replacing the shuttle space plane with a less complex crew module — resulting in a configuration known as the shuttle-derived heavy-lift vehicle.

"We can't start over and develop a Saturn 5-type vehicle from scratch," Aldrin said. "We need to build on what exists now, and what exists now has flown 100 times now and has been improved."

The shuttle-derived heavy-lift concept is indeed among the ideas being considered for NASA's next-generation launch system, but the most widely favored approach goes in a different direction — to use beefed-up Atlas or Delta expendable rockets, much like the ones currently used to launch unmanned satellites.

Rocket runoff

Proponents of the evolved expendable launch vehicles, or EELVs, say using a shuttle-derived launcher would likely be more expensive — and result in a less sustainable moon program.

Space consultant Jeff Foust, who edits the online Space Review, argues that the shuttle-derived system would be NASA's "[least desirable](#)" alternative for future launches.

But Aldrin says the pressure for using EELVs is coming from the U.S. Air Force as well as the Boeing Co. and Lockheed Martin, which need the extra payloads to turn a profit on the Delta and Atlas rockets.

"It's better to operate one vehicle than two or three for the nation's exploration program," he said. "And that vehicle is a shuttle-derived lift vehicle that's more than twice as powerful as the EELVs right now, and it has the growth potential to be even greater ... approaching [the power] of the Saturn 5."

More frontiers ahead

Aldrin believes that rocket could also be used by commercial concerns by 2020 to make the leap from suborbital joyrides to true orbital spaceflight for the masses.

"As we begin to have landings on the moon, we can alternate those with vertical launch of similar crew modules on similar launch vehicles for vertical-launch tourism in space, if you want to call it that ... adventure travel," he said.

In 30 years or so, NASA should be in a position to send humans to Mars, Aldrin said. "We need to set that as a goal — not one or two missions to Mars, but moving toward a permanent station on the surface of Mars," he said.

Like most of his fellow Apollo astronauts, Aldrin assumed back in 1969 that the "giant leap" he and Neil Armstrong took would lead more quickly to further steps along the road to space. The important thing, he said, was to keep moving and not to put the country's dreams of space exploration on hold — as was done at the end of the Apollo era.

"There were about six years when there was not one American who went into space," Aldrin said. "We shouldn't do that again."

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