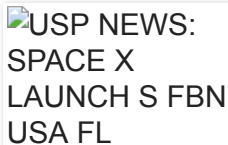




# SpaceX is An Unsafe Rich Boy Toy - Next space explorers must go boldly — and safely

Richard Hagar, Guest columnist

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*(Photo: Malcolm Denmark, Florida Today/USA TODAY NETWORK)*

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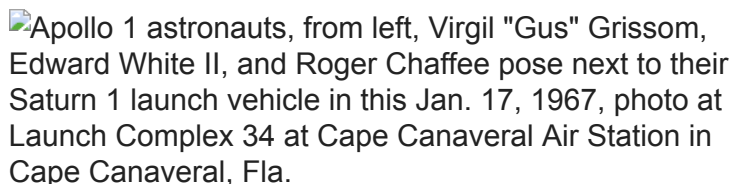
Space exploration in the 21st century offers the possibility to reach new frontiers, from developing a lunar gateway for deep space travel, returning American astronauts to the surface of the Moon and eventually putting humans on Mars.

With NASA preparing to return crewed astronaut launches to the U.S. for the first time since the end of the Space Shuttle program in 2011, and return astronauts to deep space for the first time since the end of the Apollo program in 1972, we are on the cusp of an exciting new era in human spaceflight and exploration.

As we prepare to launch new crewed spacecraft over the next several years, we need to honor the lessons learned from the tragedies of Apollo I, Challenger and Columbia. To successfully reach these next milestones in exploration, it is critical that core safety priorities continue to protect American astronauts and avoid unnecessary risks beyond those inherent to all launches and spaceflight.

I spent much of my career developing and supporting the Apollo program that landed NASA astronauts on the Moon. The experiences our engineers learned on the first Apollo launches shaped the steps in place today to ensure the safety of the entire team and success of the program.

[Apollo 1](#) would have been the first manned flight, with astronauts Virgil “Gus” Grissom, Ed White and Roger Chaffee onboard. That 1967 mission was supposed to be simple — fly the vehicle, fire the Module Engine and return to Earth.

Apollo 1 astronauts, from left, Virgil “Gus” Grissom, Edward White II, and Roger Chaffee pose next to their Saturn 1 launch vehicle in this Jan. 17, 1967, photo at Launch Complex 34 at Cape Canaveral Air Station in Cape Canaveral, Fla.

*Apollo 1 astronauts, from left, Virgil “Gus” Grissom, Edward White II, and Roger Chaffee pose next to their Saturn 1 launch vehicle in this Jan. 17, 1967, photo at Launch Complex 34 at Cape Canaveral Air Station in Cape Canaveral, Fla. (Photo: Courtesy of NASA)*

During the second attempt to run the “plugs out test” with 100 percent oxygen in the command module, we held the