



## 40<sup>th</sup> Anniversary of FSLP and the Amazing John W. Young,

***“Come on, I’m going to give you a three-dollar ride, John growled at Ulf. Nobody is flying into space with me who I haven’t flown with at least once in the T-38”.***

*(John Young to Ulf Merbold before their STS-9 flight) [1]*



*“We took a seat in the T-38, strapped ourselves in, connected to the oxygen supply and the communication system. At this point I knew I was facing a roller-coaster flight with rolls and loops. And indeed John got down to business, he flew loops, rolls and steep curves that I certainly would have lost my bearings if I had experienced that for the first time. He flew with the greatest precision, so he targeted the top of a cumulus cloud started right above a looping then went up into an inverted flight and down into the dive to exactly exit at the point we started.” [1]*

Young’s sixth space flight was as Spacecraft Commander of STS-9, the first Spacelab (FSLP) mission, November 28-December 8, 1983, with Pilot Brewster Shaw, Mission Specialists Bob Parker and Owen Garriott, and Payload Specialists Byron Lichtenberg of the USA and Ulf Merbold of West Germany as Payload Specialist.

The mission successfully completed all 94 of its flight test objectives. For ten days the 6-man crew worked 12-hour shifts around-the-clock, performing more than 70 experiments in the fields of atmospheric physics, Earth observations, space plasma physics, astronomy and solar physics, materials processing and life sciences. [2].

After his passing away on January 5, 2018 John Young was praised as the “most underestimated NASA Astronaut”, and indeed his achievements as pilot and astronaut were stunning.

The following is a summary by chatGPT, prompted, corrected and verified by the Editor.

In the annals of space exploration, some names stand out like beacons, capturing the collective imagination of generations. Neil Armstrong, Buzz Aldrin, and Yuri Gagarin are just a few of the luminaries whose names are etched in the history of human spaceflight. However, among these giants, there is one name that often goes overlooked: John W. Young. A pioneer of space exploration, Young's remarkable career at NASA is a testament to his incredible skill, dedication, and adaptability in the face of daunting challenges.

In 1952 Young joined the U.S. Navy, where he served as flight trainer and later as a test pilot and logged thousands of flight hours.

In 1962, Young was selected as one of the second group of astronauts by NASA, commonly known as the "New Nine." This was a prestigious group, including the likes of Pete Conrad, James Lovell, Edward White, Tom Stafford and also Neil Armstrong who would go on to play pivotal roles in America's space program.

Young's career truly began to steepen during NASA's Gemini program. He was the pilot of Gemini 3, the *first* manned mission of the program, which marked a crucial step in demonstrating the viability of human spaceflight. On March 23, 1965, Young, alongside astronaut Gus Grissom, orbited the Earth three times, laying the groundwork for the Apollo missions to come.

While John W. Young may not be as immediately recognizable as some of his contemporaries, his contributions to the Apollo program were nothing short of extraordinary. He was the command module pilot on Apollo 10, the "dress rehearsal" for the historic Apollo 11 moon landing. His precision and expertise were instrumental in the success of this pivotal mission.

Young's most significant personal achievement came in 1972, during Apollo 16, when he became the ninth person to walk on the moon. Alongside astronaut Charles M. Duke, Young spent over 20 hours exploring the lunar surface, conducting experiments, and collecting valuable data. His meticulous attention to detail and ability to remain calm under pressure ensured the mission's success.

Young's versatility and adaptability were again on display during the early years of the Space Shuttle program. In 1981, he commanded the *first* shuttle flight, STS-1, aboard the orbiter Columbia. This historic mission marked the beginning of a new era in space exploration, and Young's leadership was paramount to its success. The Orbiter Columbia was the *first* manned spaceship tested during ascent, on orbit, and entry without benefit of previous unmanned missions. Columbia was also the *first* winged reentry vehicle to return from space to a runway landing. It weighed about 98 tons as Young smoothly landed on the dry lakebed at Edwards Air Force Base, California [3]

Young's sixth flight was as Spacecraft Commander of STS-9, the *first* Spacelab (FSLP) mission, November 28-December 8, 1983. His piloting skills are described in Merbold's book of the STS-9 flight:

*Another important maneuver is the heading alignment circle. This is a curve the shuttle flies on its descent before it begins its approach. Depending on whether this curve, usually almost a full circle, is flown with a large or small radius a lot or little altitude can be lost.*

*Of course, John couldn't resist switching to manual control. None of the old fly-boys would have missed this opportunity, and from now on, things went pretty fast.*

*John flew relaxed, as if piloting a trainer-aircraft. On the radio we heard flight control Houston confirm, that we had the right speed and the right altitude to get exactly where John wanted to go. At about 1,200 m above the runway, John flattened our approach angle. Instead with 17 degrees, we went down with only 7 degrees, The speed dropped from 520 km per hour to 150 km per hour.*

*Brewster had everything prepared to extend the landing gear. At a height of about 40 meters he pressed the button and the increasing wind noise indicated the gear's release. Bruce reported "landing gear locked" seconds later. Very gently John sat down the 100 ton space glider with the Space Lab in its hold. It was hardly noticeable that we had solid ground again under the tires. The final descent rate was only 30 cm per second - a masterful landing! [1]*

John Young has logged more than 15,275 hours flying time in props, jets, helicopters, rocket jets, more than 9,200 hours in T-38s, and six space flights of 835 hours. [2]

In January 1973, Young was made Chief of the Space Shuttle Branch of the Astronaut Office, providing operational and engineering astronaut support for the design and development of the Space Shuttle. In January 1974, he was selected to be Chief of the Astronaut Office, with responsibility for the coordination, scheduling, and control of activities of the astronauts. Young served as Chief of the Astronaut Office until May 1987. During his tenure, astronaut flight crews participated in the Apollo-Soyuz joint American-Russian docking mission, the Space Shuttle Orbiter Approach and Landing Test Program, and 25 Space Shuttle missions.

John Young also served as witness on the Rodgers's Commission investigating the STS-51-L Challenger accident in 1986.

From May 1987 to February 1996, Young served as Special Assistant to the Director of JSC for Engineering, Operations, and Safety. In that position, he had direct access to the Center Director and other senior managers in defining and resolving issues affecting the continued safe operation of the Space Shuttle. Additionally, he assisted the Center Director in providing advice and counsel on engineering, operational, and safety matters related to the Space Station, Shuttle upgrades, and advanced human Space Exploration Programs, back to the Moon and on to Mars. [2]

Young's unparalleled dedication, technical prowess, and unwavering calm under pressure earned him the admiration and respect of his colleagues and the world. His legacy lives on in the continued pursuit of knowledge and exploration: back to the Moon and beyond!



*On the front row are Astronauts Owen K. Garriott, mission specialist; Brewster H. Shaw, Jr., pilot; John W. Young, commander; and Robert A. R. Parker, mission specialist. Payload specialists Byron K. Lichtenberg of the Massachusetts of Technology, left and Ulf Merbold, West Germany (ESA), standing right. (NASA S83-35017, June 1983).*

#### References

- [1] Ulf Merbold "Flug ins All", ISBN 3-7857-0399-6, 1986 Gustav Lübbe Verlag
- [2] John Young NASA Biography [https://www.nasa.gov/wp-content/uploads/2021/10/young\\_john.pdf](https://www.nasa.gov/wp-content/uploads/2021/10/young_john.pdf)
- [3] ChatGPT John W. Young: NASA's Most Underestimated Astronaut