Out of this world
Keene, R R
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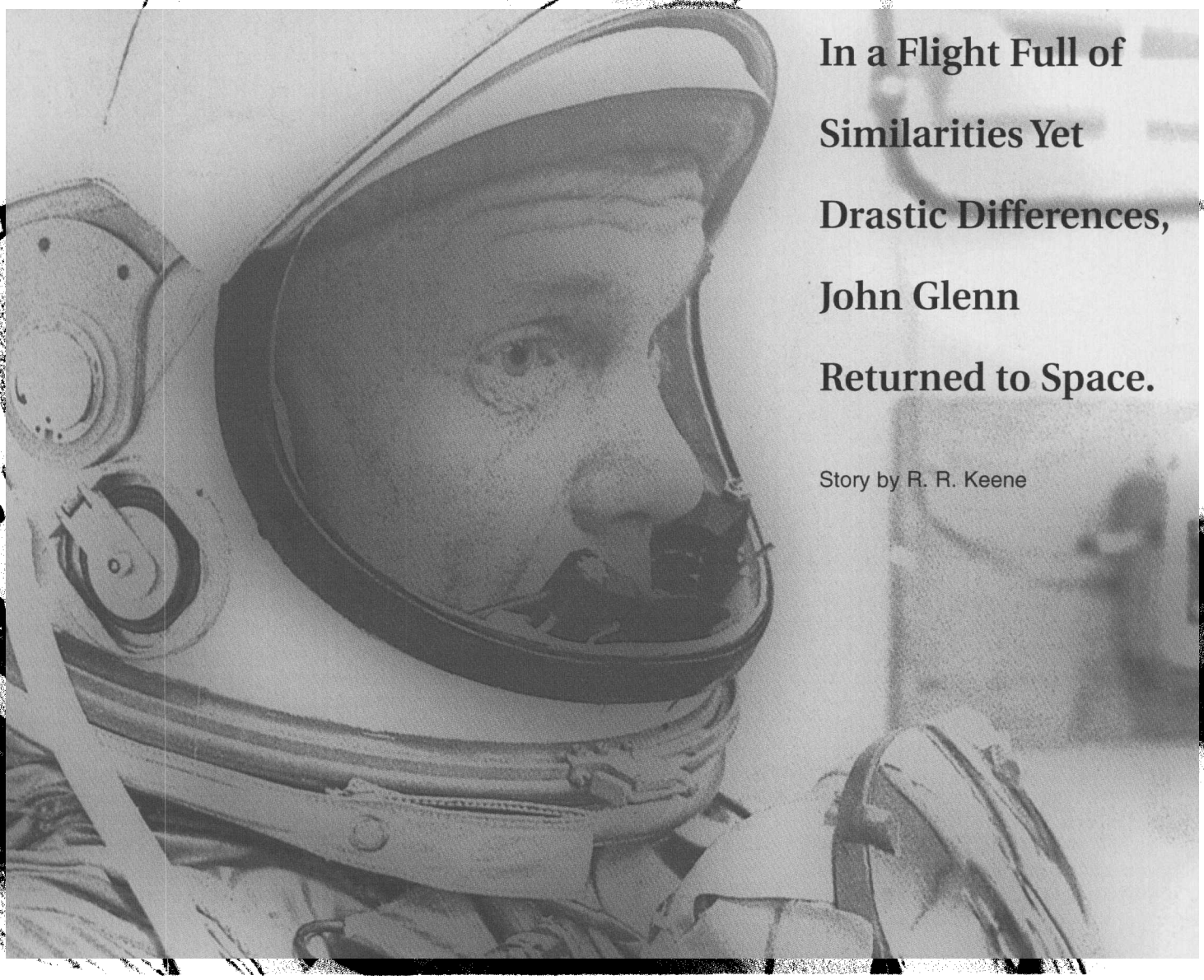


In a Flight Full of Similarities Yet Drastic Differences, John Glenn Returned to Space.

Story by R. R. Keene

In 1961, astronaut John Glenn suited up for his Friendship 7 flight around Earth. (Photo courtesy of NASA)

He's always had the right stuff. At 77 years of age, retired Marine Colonel John Herschel Glenn Jr. showed that he still has the right stuff because he never stopped reaching for the stars or became too old to dream.

Thirty-six years ago he was the first person to orbit the earth. On Oct. 29, 1998, he became the oldest person ever to go into space.

Most Generation X'ers today knew Glenn as a four-term Democratic senator from Ohio, who'd been an astronaut back in the 1960s.

He'd been that, but he'd also been much more.

Glenn was once a naval reservist, who became a Marine fighter pilot, a test pilot and one of America's original seven astronauts selected to lead America into the space age. Baby boomers remember that at the very beginning of the turbulent '60s, America was in the middle of the Cold War, had a new, young President named John F. Kennedy and was getting its aerospace butt kicked by the Soviet Union. The Communists had launched the first satellite, then launched a dog into space, and on April 12, 1961, Soviet Air Force Major Yuri A. Gagarin became the first man to leave the earth's atmosphere.

American technology responded breathtakingly quickly. Twenty-three days later, a slim and friendly Navy lieutenant commander named Alan B. Shepard Jr. became the first American in space with a suborbital flight of 15 minutes. America saw it all on black-and-white television, as CBS newsman Walter Cronkite covered the cheering spectators on site and noted the NASA nurse who fingered rosary beads as the Redstone rocket lifted off. Money and support poured in for the space program.

Shepard was followed on July 21, 1961, with a similar mission by Air Force Captain Virgil I. "Gus" Grissom. They were two of the seven who'd been selected on April 9, 1959, as the Project Mercury astronauts. The others were Navy Lieutenant Malcolm "Scott" Carpenter, Navy LtCdr Walter M. "Wally" Schirra, Air Force Capt Donald K. "Deke" Slayton, Air Force Capt Leroy "Gordon" Cooper Jr. and

Lieutenant Colonel John Glenn, the only Marine.

Even then, Glenn, at age 38, was the oldest member of the crew, but he was also the one who most personified the all-American image. He appeared in dress white uniform with a freckle-faced, redheaded boy named Eddie Hodges on the TV game show "Name That Tune." The freckled pair remained unbeaten for several weeks, splitting $25,000 and captivating audiences.

But Glenn was more than just a poster boy. He was an aviation hero in his own right. To those who had lived through the Depression and World War II, those things counted but were not that uncommon among them.

Glenn attended Muskingum College in New Concord, Ohio, for most of World War II. He initially enlisted in the Naval Reserve and then switched to the Corps following his graduation in 1943 from naval flight training at Corpus Christi, Texas. He was commissioned a Marine second lieutenant on March 31, 1943, designated a naval aviator and took off to the Pacific. He was soon flying the gull-winged F-4U Corsair with Marine Fighter Squadron (VMF) 155 in what became the Marshall Islands campaign of 1944.

He would fly 59 combat missions and win two Distinguished Flying Crosses and 10 Air Medals.

Ten years later, in 1953, he'd be called on to fly and fight again in Korea. Wearing the "Tom Cat" squadron patch of VMF-311, he flew the bulky F-9F Panther jet on bombing and strafing runs on railroads, bridges and supply depots throughout the Korean peninsula. He flew 63 missions and earned a third DFC and six more Air Medals.

As an exchange pilot with the Air Force, in June 1954 flying with the 15th Squadron of the 51st Interceptor Wing, Maj Glenn piloted the supersonic Sabre jet. He had it painted with the words "Join the Marines" next to the plane's Air Force markings.

In the last three weeks of the war he shot down three MiG jets in nine days and is credited with downing the last enemy aircraft of that war. The Air Force awarded Glenn a fourth DFC and two more Air Medals.

Had the war lasted longer, some speculate Glenn could have become an ace. Glenn looked at it differently and shrugged it off by saying, "Maybe one of the MiG pilots would have shot me down."

When his combat flying ended, he took to test-piloting. As an F-8U Crusader project officer in Patuxent River, Md., he raced the sun across the United States in July 1957 and won. Flying from coast to coast in 3 hours, 23 minutes and 8.1 seconds, he was the first to do it nonstop, supersonic while setting a new world speed record. He was awarded a fifth DFC.

While Glenn's aviation achievements were many, they were eclipsed in the fearful thunder and enormous clouds of steam and burned fuel on Feb. 20, 1962. Americans, riveted to their televisions, held their collective breath as the three main engines of the massive Atlas rocket ignited, lifting ever so slowly the Marine lieutenant colonel in his smaller-than-a-Volkswagen capsule, dubbed Friendship 7, off the launch pad at Cape Canaveral, Fla.

Courtesy of NASA

In mission control, fellow astronaut Scott Carpenter said, "Godspeed, John Glenn," and the usually unflappable news anchor Walter Cronkite yelled, "Go, baby, go!"

It was the first manned orbital mission of the United States, and once free of Earth's gravity, Glenn radioed "Zero G, and I feel fine."

He completed a successful three-orbit mission around Earth, reaching a maximum altitude of approximately 162 miles and an orbital velocity of approximately 17,500 miles per hour.

Glenn wasn't actually supposed to fly the capsule, but a warning light at Mission Control indicating that the spacecraft may have lost its heat shield at some point caught everybody's eye. Without it, the capsule would burn like a meteor upon reentry into the earth's atmosphere.

For the senator, learning the ins and outs of the space shuttle Discovery's electronic equipment (above) was a far cry from the instruments on the F-8U Crusader he flew (below) as a test pilot. (Bottom photo USMC)

Two More Marines Make History for NASA

Even as Senator John Glenn was being honored by the Department of Defense last Dec. 4 for his service as a Marine, astronaut and long-time elected public servant, two other Marines were busy adding another page to the annals of America's space program.

Colonel Robert D. Cabana, Major Frederick W. "Rick" Sturckow and four other crewmembers were launched into space aboard the shuttle Endeavour, beginning the largest cooperative space project in history—constructing the International Space Station. On Dec. 6, Endeavour's astronauts successfully attached the Russian-built Zarya control module, already in orbit, to the U.S.-built Unity connecting module they had taken with them.

On Dec. 15 Col Cabana, the mission commander, guided the shuttle to a perfect landing on Runway 15 at the Kennedy Space Center. The mission was his fourth space flight since his selection as an astronaut in June 1985. He has logged more than 627 hours in space, serving as pilot for missions STS-41 in October 1990 and STS-53 in December 1992 and as mission commander for STS-65 in July 1994.

Piloting Endeavour marks Maj Sturckow's first space flight. The F/A-18 test pilot and combat veteran of Operation Desert Storm was selected as an astronaut in December 1994.

Both Marines have distinguished careers in Marine aviation. Col Cabana, a native of Minneapolis, is a graduate of the U.S. Naval Academy. Designated a naval flight officer in 1972, he served as an A-6 Intruder bombardier/navigator with the First and Second Marine Aircraft Wings before completing pilot training and being designated a naval aviator in 1976. After another tour with the 2d MAW, he graduated from the U.S. Naval Test Pilot School in 1981 and served at Naval Air Test Center, Patuxent River, Md. At the time of his selection as an astronaut, Cabana was serving as the assistant operations officer of Marine Aircraft Group 12 at Marine Corps Air Station, Iwakuni, Japan.

Among Col Cabana's awards and decorations are The Daughters of the American Revolution Award for top Marine to complete naval flight training; distinguished graduate, U.S. Naval Test Pilot School; De La Vaulx Medal by the Federation Aeronautique Internationale; Defense Superior Service Medal; Distinguished Flying Cross; NASA Medal for Outstanding Leadership; two NASA Exceptional Service Medals; and three NASA Space Flight Medals. He has logged more than 5,000 hours in 33 different types of aircraft.

Maj Sturckow of Lakeside, Calif., was designated a naval aviator in April 1987. As an F/A-18 Hornet pilot, he served with Marine Fighter Attack Squadron 333 based at Marine Corps Air Station, Beaufort, S.C. Selected to attend the Navy Fighter Weapons School (TopGun) in March 1990, Maj Sturckow went on to fly 41 combat missions during Operation Desert Storm and served as overall mission commander for 30-plane airstrikes into Iraq and Kuwait. After graduation from United States Air Force Test Pilot School, Edwards Air Force Base, Calif., he reported in 1993 to the Naval Air Warfare Center (Aircraft Division), Patuxent River for duty as the F/A-18E/F project pilot.

Maj Sturckow's decorations include the Single Mission Air Medal with Combat "V" and four Strike/Flight Air Medals. He has logged approximately 2,500 flight hours and has flown more than 40 different aircraft.

—Compiled from NASA reports

With his heartbeat monitor registering only a slight jump to 109, which most people reach during a brisk walk, Glenn took control.

He would later state: "Right away I could see flaming chunks of it go flying by the window...and I thought the heat shield might be falling apart. But I knew if that was really happening, it would be all over shortly, and there was nothing I could do about it."

He told mission control, "My condition is good, but that was a real fireball, boy."

Glenn did survive, and after 4 hours, 55 minutes and 23 seconds of flight, his spacecraft splashed down into the cooling Atlantic Ocean approximately 800 miles southeast of Cape Canaveral. He was picked up, fittingly, by a Marine UH-34 Sea Horse helicopter off the aircraft carrier USS *Randolph* (CVS-15) only 41 miles from his planned impact point and five miles off the bow of the destroyer USS *Noa* (DD-841).

He became an instant sensation and celebrity, and America's pride had been restored. Not only could the nation beat the Russians, but Americans figured that with men like John Glenn, the sky was really no limit.

Nine days after his return, 4 million people poured into Manhattan, and a blizzard of 3,400 tons of confetti rained down through the concrete canyons and onto John Glenn and the Marine Band as they paraded before cheering crowds the likes of which hadn't turned out since the end of World War II.

All fame is fleeting, and although he wanted to remain an active astronaut, President Kennedy believed it was not in the country's interest to endanger a national hero. Consequently, Glenn was pulled from flight status. Three years later, as they presented him with the Space Congressional Medal of Honor, Glenn resigned from the Manned Spacecraft Center. On Jan. 1, 1965, he retired from the Marine Corps as a colonel with 23 years of service.

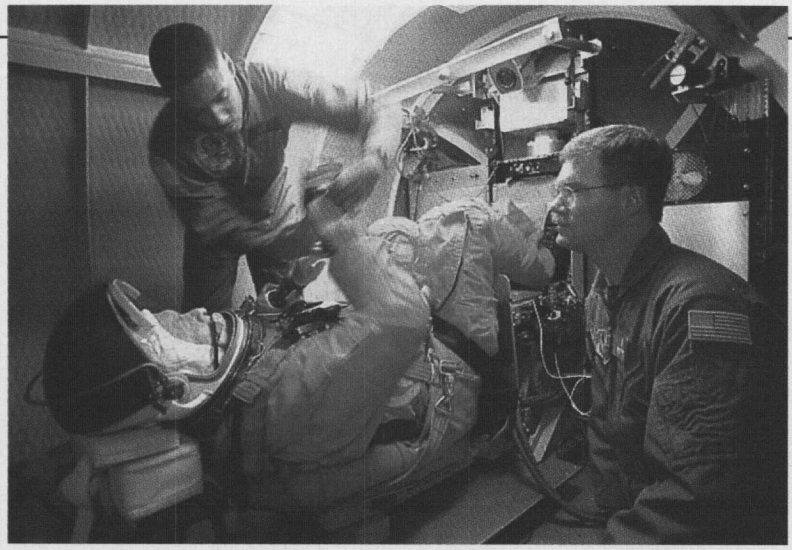
Although he has spent most of his time since then in the political arena, Glenn often talked about serving as a geriatric guinea pig in space. As early as 1994, some 25 years after the Apollo moon landing, Glenn was lobbying Dan Goldin, NASA administrator, for a chance to return to space.

Goldin was naturally hesitant, but Glenn was persistent. He pointed out that he was still in excellent physical condition. At 168 pounds, he could walk over to the National Aerospace Museum where his Friendship 7 capsule hangs and still cram his frame into it with very little effort. He pointed to his service on the Select Committee on Aging and to the fact that he was considered one of the Senate's leading experts on technical and scientific matters.

When in 1997 he announced his coming retirement from the Senate, Glenn again expressed his interest in returning to space and offered himself for a mission that might serve to investigate aging.

NASA finally consented. On Jan. 16, 1998, NASA officials announced that Glenn had been selected to participate as a payload specialist on October's shuttle mission.

Again, Glenn was one of a crew of seven. Only



Courtesy of NASA

John Glenn was strapped into a U.S. Air Force centrifuge at Brooks Air Force Base, Texas, in preparation for his October 1998 space flight aboard the shuttle Discovery.

this time, still the only Marine in his crew, he would fly in the space shuttle Discovery with Air Force LtCol Curtis L. Brown, the shuttle commander; Air Force LtCol Steven W. Lindsey, the pilot; astronaut Stephen K. Robinson, flight engineer; astronaut Scott E. Parazynski, doctor; astronaut Pedro Duque, mission specialist; and payload specialist Chiaki Mukai, cardiovascular surgeon.

On the afternoon of Oct. 29, as Hurricane Mitch battered the coast of Honduras, killing thousands, 17,000 spectators at Cape Kennedy were joined by countless others across the nation in watching on television the gantry pull away from the launch pad. Again, the nation held its collective breath.

For Glenn, strapped into his seat and holding hands with other members of the crew as they took the bumpy ride through the earth's thinning atmosphere, it was a long way from Friendship 7.

The crew's mission, somewhat overlooked in the media fervor caused by having Glenn aboard, was to deploy a satellite that would study the solar corona, test parts for the Hubble Space Telescope, conduct experiments involving robotic instruments called International Extreme Ultraviolet Hitchhiker and study the effects of aging on humans in space.

Patched to his skin were sensors that told monitors and people all over the world just about every-

Sgt Curt Giese

Maj John Glenn flew his Panther jet back to base in 1953 despite 375 bullet holes received during a low-level bombing run.

Courtesy of NASA

Unlike his 1961 mission which he flew by himself, Glenn was joined by six other crewmembers on Discovery's trip.

thing they had ever wanted to know about Glenn's physiological makeup and then some. He explained via satellite television the series of medical experiments designed by NASA and the National Institute on Aging intended to correlate the physical stresses of space flight with the stresses of aging. The experiments focused on how Glenn coped with muscle atrophy, bone decalcification, balance distribution and sleep disturbance. Researchers hoped to learn why the earthbound elderly suffer similar problems, along with deterioration of the heart, lungs and immune system.

The trip lasted for nine days.

Perth, Australia, turned on all its lights as the shuttle passed over, just as it had done during Glenn's original space flight.

It was, however, an older nation that cheered an older Glenn. Discovery landed on a runway in California instead of splashing down into an ocean. Glenn and crew were greeted by news media and scientists, not the cheering sailors and Marines on the deck of USS *Randolph* of 30 years before. The nation gave him another ticker-tape parade in Manhattan, but it was somewhat more subdued. NASA, which does not receive the funding it did in the days of Project Mercury or even during the days of the Apollo moonwalk missions, succeeded in capturing the nation's attention again. Whether it obtains more money remains to be seen.

The country, however, all three generations worth, got another good look at a person who in many ways represented what America once was and still could be: a place where real heroes are not uncommon.

Commandant of the Marine Corps Gen Charles C. Krulak presented Sen. John Glenn with the Distinguished Public Service Award last Dec. 10 for his more than 50 years of service to the country.

Cpl Jerry Pierce

Writer Michael Arrington in a recent essay wrote, "One of the best reasons for flying people in space, in my opinion, is because of what it does to boost the spirit of people everywhere. It proves to us that 'impossible' is a very relative term. Godspeed again, John Glenn."