

= Mark Kelly =

Mark Edward Kelly (born February 21 , 1964) is a retired American astronaut , engineer and U.S. Navy Captain . He is the husband of former Congresswoman Gabrielle Giffords , an author , a political activist , and an aerospace executive and consultant .

A naval aviator , Kelly flew combat missions during the Gulf War . He was selected to become a NASA Space Shuttle pilot in 1996 and flew his first mission in 2001 as pilot of STS @-@ 108 . He piloted STS @-@ 121 in 2006 and commanded STS @-@ 124 in 2008 and STS @-@ 134 in 2011 . STS @-@ 134 was his final mission and the final mission of Space Shuttle Endeavour .

His wife was the target of an attempted assassination in Tucson , Arizona , on January 8 , 2011 . After the shooting , in which six people were killed , both Kelly and Giffords were thrust into the media spotlight . His wife 's shooting led to a broad national conversation ranging from the duties of a husband to what is acceptable civil discourse .

Kelly 's identical twin brother , Scott Kelly , is also an astronaut . The Kelly brothers are the only siblings to have both traveled in space . In 2015 , Scott Kelly began a mission spending a year in space on the International Space Station . He returned to Earth on March 1 , 2016 after 340 days in space . During and after Scott 's year @-@ long mission , the brothers will be studied to find differences between living on Earth and in space .

= = Early life and education = =

Mark Edward Kelly is the son of Richard and Patricia Kelly , two retired police officers . He was born on February 21 , 1964 in Orange , New Jersey , and raised in West Orange , New Jersey . Kelly graduated from Mountain High School in 1982 . He received a Bachelor of Science degree in Marine Engineering and Nautical Science from the United States Merchant Marine Academy , graduating with highest honors in 1986 . In 1994 , he received a Master of Science degree in Aeronautical Engineering from the U.S. Naval Postgraduate School .

= = Naval career = =

In December 1987 , Kelly became a Naval Aviator and received initial training on the A @-@ 6E Intruder attack aircraft . He was then assigned to Attack Squadron 115 (VA @-@ 115) in Atsugi , Japan , and made two deployments to the Persian Gulf on the aircraft carrier USS Midway , flying 39 combat missions in Operation Desert Storm . After receiving his master 's degree he attended the U.S. Naval Test Pilot School from June 1993 to June 1994 . He has logged more than 5 @,@ 000 hours in more than 50 different aircraft and has over 375 carrier landings .

He is the recipient of the following awards : two Defense Superior Service Medals ; four Air Medals (two individual / two strike flight) with Combat " V " ; one Legion of Merit ; one Distinguished Flying Cross ; two Navy Commendation Medals , one with combat " V ") ; one Navy Achievement Medal ; two Southwest Asia Service Medals ; one Navy Expeditionary Medal ; two Sea Service Deployment Ribbons ; and an Overseas Service Ribbon .

On June 21 , 2011 , Kelly announced his retirement from the U.S. Navy and NASA , effective October 1 , 2011 . His retirement was announced on his Facebook page , where he wrote , " Words cannot convey my deep gratitude for the opportunities I have been given to serve our great nation . From the day I entered the United States Merchant Marine Academy in the summer of 1982 to the moment I landed the Space Shuttle Endeavour three weeks ago , it has been my privilege to advance the ideals that define the United States of America . "

= = NASA career = =

Mark Kelly and his brother Scott were both selected to be Shuttle pilots by NASA in 1996 . They joined the NASA Astronaut Corps in August of that year . Mark Kelly has logged over 54 days in space .

During his 2006 flight on Space Shuttle Discovery , the second mission after the loss of Space Shuttle Columbia , Kelly discussed the risks of flying the Space Shuttle :

The Space Shuttle 's a very complex machine . It 's got a lot of moving parts that move and operate at pretty much the limit of what we 've been able to engineer . Spaceflight is risky . I think with regards to the tank , we 've reduced some of the risk there . We 've changed the design a little bit and we 've made some pretty big strides in trying to get foam not to shed from the tank anymore . So there is some risk reduction there and I guess overall the risk is probably a little less . But this is a risky business , but it 's got a big reward . Everybody on board Discovery and the space station here thinks it 's worthwhile .

= = = Spaceflight experience = = =

= = = = STS @-@ 108 = = = =

Kelly 's first trip into space was as pilot of STS @-@ 108 . After several delays , Endeavour lifted off on December 5 , 2001 , on the final Shuttle mission of 2001 .

STS @-@ 108 Endeavour visited the ISS , delivering over three tons of equipment , supplies , and a fresh crew to the orbiting outpost . The hatches were opened between Endeavour and the ISS Destiny Laboratory on December 7 , enabling the ten crew members to greet one another . The Expedition 3 crew officially ended their 117 @-@ day residency on board the International Space Station on December 8 as their custom Soyuz seat @-@ liners were transferred to Endeavour for the return trip home . The transfer of the Expedition 4 seat @-@ liners to the Soyuz return vehicle attached to the station marked the official exchange of crews .

Kelly and Mission Specialist Linda Godwin used the Shuttle 's robotic arm to lift the Raffaello Multi @-@ Purpose Logistics Module from the shuttle payload bay and attach it to a berth on the station 's Unity node . The crews began unloading supplies the same day . Mission managers extended Endeavour 's flight duration to 12 days to allow the crew to assist with additional maintenance tasks on the station , including work on a treadmill and replacing a failed compressor in one of the air conditioners in the Zvezda Service Module . A change of command ceremony took place on December 13 as Expedition 3 ended and Expedition 4 began . STS @-@ 108 returned to Earth with the previous ISS crew of three men .

Kelly traveled over 4 @.@ 8 million miles and orbited the earth 186 times over 11 days and 19 + hours .

= = = = STS @-@ 121 = = = =

In July 2006 Kelly served as pilot for STS @-@ 121 Discovery , the second " Return to Flight " mission following the loss of Columbia in February 2003 . Because of weather delays , STS @-@ 121 became the first Shuttle mission to launch on the Fourth of July .

The main purposes of the mission were to test new safety and repair techniques introduced following the Columbia disaster as well as to deliver supplies , equipment , and European Space Agency (ESA) astronaut Thomas Reiter from Germany to the ISS . The transfer of Reiter to the ISS returned the station to a three crew member staffing level .

During the STS @-@ 121 mission to the ISS , the crew of Discovery continued to test new equipment and procedures for the inspection and repair of the thermal protection system that is designed to increase the safety of the Shuttles . It also delivered more supplies and cargo for future ISS expansion .

After the Columbia accident , NASA decided that two test flights would be required and that activities that were originally assigned to STS @-@ 114 would need to be divided into two missions because of the addition of post @-@ Columbia safety tests .

Gabrielle Giffords , Kelly 's girlfriend at the time , picked one of the wake @-@ up songs for the mission : " Beautiful Day " by U2 .

Kelly traveled over 5 @. @ 28 million miles and orbited the Earth 202 times over 12 days and 18 + hours .

===== STS @-@ 124 =====

STS @-@ 124 Discovery was Kelly 's first mission as commander . A month prior to liftoff , he discussed what being a Shuttle commander entailed and how it was different from his previous missions :

My first two flights I was the pilot . Being the commander is different in that you ? re responsible for the overall mission You have to worry about the whole thing , the training drill your other crew members are getting , mission success , and mission safety . So it is a more comprehensive job and requires more time . I ? m really a little bit surprised at how much more there is to it . But I think it ? s more rewarding as well .

The mission was the second of three Shuttle missions to carry components of Japan 's Kibo laboratory to the ISS . Kibo means hope in Japanese . The laboratory is Japan 's primary contribution to the ISS .

Just prior to liftoff Kelly said : " While we 've all prepared for this event today , the discoveries from Kibo will definitely offer hope for tomorrow . Now stand by for the greatest show on Earth . "

During the launch , Launch Pad 39A sustained substantial damage , more than had been seen on any previous launch . Following liftoff , inspectors discovered that bricks and mortar from the launch pad 's base had been thrown as far as the perimeter fence , a distance of 1 @, @ 500 feet (457 m)

Kelly and his crew delivered the pressurized module for Kibo to the ISS . The module is the largest component of the Kibo laboratory and the station 's largest habitable module . Discovery also delivered Kibo 's Remote Manipulator System . Perhaps the most important part they delivered was a replacement part for the station 's toilet . The single toilet on the ISS had been malfunctioning for a week , creating a potentially serious problem for the crew . When Kelly first entered the station , he joked , " You looking for a plumber ? " , referring to the broken toilet .

This mission marked the first time a spouse of a member of the U.S. Congress traveled to space . Kelly traveled over 5 @. @ 7 million miles , and orbited the earth 218 times over 13 days and 18 hours .

===== STS @-@ 134 =====

STS @-@ 134 launched on May 16 , 2011 .

On April 29 , 2011 , the first launch attempt of STS @-@ 134 was scrubbed . Kelly 's wife , Gabrielle Giffords , traveled to Florida on her first trip since moving from Tucson to Houston in January after an attempted assassination . Giffords ' appearance at Kennedy Space Center gave the launch a high profile , " one of the most anticipated in years , " according to the New York Times . President Obama visited the Kennedy Space Center on April 29 on a trip with the original intention of watching the Endeavour launch .

Kelly was the commander of the mission which was Space Shuttle Endeavour 's last . He and his crew delivered the Alpha Magnetic Spectrometer (AMS) to the ISS .

Most of the mission 's delays were caused by external tank issues on STS @-@ 133 Discovery . When Mark 's twin brother Scott Kelly went to the ISS on October 7 , 2010 , STS @-@ 134 was scheduled to go to the station during Scott 's mission . The potential rendezvous in space of the Kelly brothers would have been a first meeting of blood relatives in space . The delay of the launch of STS @-@ 134 ended the possibility of that happening .

After the shooting of his wife , his status as commander of STS @-@ 134 was unclear , but NASA announced on February 4 , 2011 , that Kelly would remain as commander of the mission . The remarkable progress his wife was making in her recovery helped Kelly make the decision to return to training . Peggy Whitson of NASA stated " we are confident in his ability to successfully lead this mission , and I know I speak for all of NASA in saying ' welcome back . ' "

===== Papal blessing =====

At 4 p.m. PDT on May 22 , the European Space Agency and Italian Space Agency arranged for a call to Endeavour by Pope Benedict XVI . During his call ? prompted by the discovery of a gash in the Shuttle 's fuselage ? the Pope extended his blessing to Kelly 's wife , Gabrielle Giffords , who had undergone skull surgery earlier in the week . The event marked the first time a Pope spoke to astronauts during the course of a mission .

===== U2 =====

On June 24 , 2011 , a prerecorded message by Kelly from the ISS , wished his wife love using song lyrics from David Bowie 's ' Space Oddity ' and introduced U2 's song " Beautiful Day " on the first night of the Glastonbury festival in England . A similar message from Kelly aboard the ISS was played during U2 's 360 ° Tour concert stop at various locations . He says : " I 'm looking forward to coming home . Tell my wife I love her very much , she knows . "

===== Retirement from NASA =====

On June 21 , 2011 , Kelly announced that he would be leaving NASA 's astronaut corps and the U.S. Navy effective October 1 . He cited the needs of his wife during her recovery as a reason for his retirement .

===== Post @-@ NASA Career =====

===== Author =====

In 2011 he coauthored Gabby : A Story of Courage , Love and Resilience , with his wife . The book provides biographical information on the couple and describes in detail the assassination attempt on Gabby and her initial recovery . Written in Kelly 's voice , it includes a short note by Giffords at the end .

Kelly 's second book , Mousetronaut , is a children 's book that was released in 2012 . It was a New York Times number one bestseller .

This was followed by a sequel the next year , Mousetronaut Goes to Mars

Giffords and Kelly co @-@ authored Enough : Our Fight to Keep America Safe from Gun Violence in 2014 .

In 2015 he wrote Astrotwins : Project Blastoff , a fictional story about twins Scott and Mark who build a space capsule in their grandpa 's backyard and try to send the first kid into orbit . He dedicated this book to his real twin brother , astronaut Scott Kelly . Astrotwins -- Project Rescue will be published in 2016 .

===== Aerospace work =====

===== World View Enterprises =====

Kelly is Director of Flight Crew Operations of Tucson @-@ based near @-@ space exploration company World View Enterprises .

===== SpaceX =====

On March 28 , 2012 SpaceX announced that Mark Kelly would be part of an independent safety

advisory panel composed of leading human spaceflight safety experts .

== Political activist ==

In January 2013 , Kelly and Giffords started a political action committee called Americans for Responsible Solutions . The mission of the organization is to promote solutions with elected officials and the general public . The couple states that it supports the Second Amendment while promoting responsible gun ownership and ? keeping guns out of the hands of dangerous people like criminals , terrorists , and the mentally ill . ? Current gun laws allow for private sellers to legally sell guns without a background check , creating a loophole that provides criminals and the mentally ill easy access to guns . Kelly said on Fox News on March 31 , 2013 that ? any bill that does not include a universal background check is a mistake , It 's the most common sense thing we can do to prevent criminals and the mentally ill from having access to weapons . "

Other proposals from Kelly and Giffords include limiting the sale of high capacity magazines , limiting the sale of assault weapons , and stopping gun trafficking . Mark Kelly was denied the sale of an AR @-@ 15 rifle . The shop owner denied Mr. Kelly the purchase stating his disagreement with Mr. Kelly 's previous statements on gun laws . Mr. Kelly had stated that he was purchasing in order to turn the weapon in to the police department . In April 2013 , Kelly was photographed at his mother @-@ in @-@ law 's house in Arizona , with Giffords watching and cheering him on while he used a Glock 9 millimeter for target practice . The gun belongs to Giffords--she owned it prior to the 2011 attempt on her life . It is the same type of gun that was used in the January 2011 shooting .

== Speaker ==

Kelly is an active public speaker .

== Personal life ==

Kelly married Amelia Victoria Babis on January 7 , 1989 . They divorced in 2004 . They have two daughters , Claudia and Claire Kelly .

Kelly married U.S. Congresswoman Gabrielle Giffords of Tucson , Arizona , on November 10 , 2007 , in a ceremony presided over by Rabbi Stephanie Aaron , and attended by his STS @-@ 124 shuttle crew and former Secretary of Labor Robert Reich . Reich toasted : " To a bride who moves at a velocity that exceeds that of anyone else in Washington , and a groom who moves at a velocity that exceeds 17 @,@ 000 miles per hour . " The couple met on a 2003 trip to China as part of a trade mission sponsored by the National Committee on U.S. ? China Relations .

At the time , he lived in Houston . At the time of their marriage Kelly said that the longest period of time the two had spent together in one stretch was a couple of weeks . He said that they didn 't plan to always live that way , but that 's what they were used to . He added , " It teaches you not to sweat the small stuff . "

== Shooting in Tucson ==

Kelly 's wife , Representative Gabrielle Giffords , was shot in an assassination attempt on January 8 , 2011 , putting Kelly in the national spotlight . On February 4 , Kelly described the previous month as the hardest time of his life ; and he expressed his gratitude for the enormous outpouring of support , good wishes and prayers for his wife . He said that he believed people praying for her helped .

Kelly received word that his wife had been shot from an aide of the Congresswoman almost immediately after the shooting . He flew from Houston to Tucson with members of his family . While en route , the Kellys received an erroneous news report that Giffords had died . " The kids , Claudia and Claire , started crying . My mother , she almost screamed . I just walked into the bathroom , and , you know , broke down . " Calling family in Tucson , Kelly found out that the report was false and

that she was alive and in surgery . " It was a terrible mistake , " Kelly said , " as bad as it was that she had died , it 's equally exciting that she hadn 't . "

From the time he arrived in Tucson , Kelly sat vigil at his wife 's bedside as she struggled to survive and began to recover . As her condition began to improve , the Kelly @-@ Giffords family researched options for rehabilitation facilities and chose one in Houston . On January 21 , Giffords was transferred to the Memorial Hermann ? Texas Medical Center , where she spent five days prior to moving to TIRR Memorial Hermann , where she continued her recovery and rehabilitation .

Giffords and her husband had spoken dozens of times about how risky her job was . She was afraid that someone would come up to her at a public event with a gun . In an interview filmed just over a week after the shooting , Kelly said , " She has Tombstone , Arizona , in her district , the town that 's too tough to die . Gabrielle Giffords is too tough to let this beat her . "

= = = = Aftermath = = = =

A memorial service for those killed was held on January 12 , 2011 , at the University of Arizona . President Barack Obama flew to Tucson to speak at the memorial . Kelly sat between First Lady Michelle Obama and Secretary of Homeland Security Janet Napolitano , the previous governor of Arizona . At the end of the service , President Obama consoled and embraced him , after which Kelly returned to the hospital to be with his wife .

Kelly spoke on February 3 , 2011 , at the National Prayer Breakfast in Washington , D.C. His remarks closed the event , where President Obama also spoke . The attack on his wife brought Kelly closer to God and gave him a newfound awareness regarding prayer . Kelly said that prior to the attack , " I thought the world just spins and the clock just ticks and things happen for no particular reason . " Kelly said that , in Tucson , as he found himself wandering in makeshift memorials and shrines , filled with Bibles and angels that " You pray where you are . You pray when God is there in your heart . " Kelly offered the final prayer of the morning . The prayer was from Rabbi Stephanie Aaron , who married Kelly and Giffords , and who said the same words over Giffords ? on the night of the shooting :

In the name of God , our God of Israel , may Michael , God 's angel messenger of compassion , watch over your right side . May Gabriel , God 's angel messenger of strength and courage , be on your left . And before you , guiding your path , Uriel , God 's angel of light and behind you , supporting you , stands Raphael , God 's angel of healing . And over your head , surrounding you , is the presence of the Divine .

Kelly believes that there 's now a chance to change a political environment he thinks is filled with far too much vitriol . He hoped that the tragedy would also be an opportunity to improve the tone of our national dialogue and cool down the rhetoric . In response to a question on February 4 , regarding the discussions about civility in politics Kelly said : " I haven 't spent a lot of time following that but I think that with something that was so horrible and so negative and the fact that six people lost their lives , including a nine @-@ year old girl , a federal judge , Gabby 's staff member Gabe ? who was like a younger brother to her ? it 's really really a sad situation . I am hopeful that something positive can come out of it . I think that will happen , so those are good things . "

= = Awards and decorations = =

Naval Pilot Astronaut Badge