## Kalpana chawla: the first indian-american astronaut

Science, Astrology



'Kalpana Chawla' ( July 1 , 1961 - February 1 , 2003 ) was an Indian-American astronaut and space shuttle mission specialist of STS-107 ( Columbia ) who was killed when the craft disintegrated after reentry into the Earth's atmosphere . Early Life Chawla was born in Karnal , Haryana , India . Her interest in flight was inspired by J. R. D. Tata , India's first pilot. EducationChawla studied aeronautical engineering at the Punjab Engineering College in 1982 where she earned her Bachelor ofSciencedegree.

Thereafter she moved to the United States to obtain a Master of Science degree in aerospace engineering from University of Texas (1984). Dr. Chawla earned a doctorate in aerospace engineering from University of Colorado in 1988. That same year she began working for NASA 's Ames Research Center. Kalpana Chawla became a naturalized USA citizen, and married Jean-Pierre Harrison, a freelance flying instructor. Chawla held a certified flight instructor's license with airplane and glider ratings, and has commercial pilot's licenses for single and multiengine land and seaplanes.

NASACareerDr. Chawla entered NASA's astronaut program in 1994 and was selected for flight in 1996. Chawla's first mission to space began on November 19, 1997 as part of the 6 astronaut crew that flew the Space Shuttle Columbia Flight STS-87. Chawla was the first Indian-born woman in space, as well as the first Indian-American in space. (She was the second person from India to fly into space, after cosmonaut Rakesh Sharma who went into space in 1984 in a Soviet spacecraft.) On her first mission Chawla travelled over 6. million miles in 252 orbits of the earth, logging more than 375 hours in space. During STS-87, she was responsible for deploying the Spartan Satellite which malfunctioned forcing two other astronauts to go on

a spacewalk to capture the solar satellite. A five-month NASA investigation blamed the error on the flight crew and ground control. She was fully exonerated (although this did not stop some reporters from making direspectful comments about her involvement in the mishap in the days after her death in the explosion of the final Columbia mission).

After being selected for a second flight, Chawla lived at the Lyndon B Johnson Space Center in Houston, Texas, undergoing extensive training. Chawla's mission got delayed in July 2002 when NASA engineers identified three cracks on the shuttle's second engine's liquid hydrogen flow liner. Over six months later the shuttle was cleared and she returned to space in the ill-fated STS-107 mission. Chawla was dedicated to the scientificgoalsof SPACEHAB/FREESTAR microgravity research mission, for which the crew conducted nearly 80 experiments studying earth and space science, advancetechnologydevelopment, and astronauthealthand safety.

Personal Characteristics Chawla was a strict vegetarian. On her mission, she carried a white silk banner as part of a worldwide campaign to honor teachers, as well as nearly two dozen CDs, including ones by Abida Parveen, Yehudi Menuhin, Ravi Shankar, and Deep Purple. She went to her first rock concert, a Deep Purple show, in 2001 with her husband. "Kalpana is not necessarily a rockmusicaficionado," her husband said of a Deep Purple show they went to in 2001. "But (she) nevertheless characterized the show as a 'spiritual experience." The administrator for the Hindu temple in Houston where Chawla attended when her schedule permitted said." She was a nice lady ... and very pious. "DeathKalpana Chawla died in the Space Shuttle

Columbia disaster which occurred on February 1, 2003, when the Space Shuttle disintegrated over Texas during re-entry into the Earth's atmosphere, with the loss of all seven crew members, shortly before it was scheduled to conclude its 28th mission, STS-107.

Memoria Shortly after her last mission, India renamed its first weather satellite 'Kalpana-1' in her honor. She died a hero and a role-model for many young women, particularly those in her hometown of Karnal where she periodically returned to encourage young girls to follow in her footsteps. Her brother, Sanjay Chawla, remarked " To me, my sister is not dead. She is immortal. Isn't that what a star is? She is a permanent star in the sky. She will always be up there where she belongs. "