**Two Women**

**Kalpana Chawla (17 March 1962 – 1 February 2003)**

Chawl was born in Karnal, India. She completed her earlier schooling at Tagore Baal Niketon Senior Secondary School, Karnal. She is the first Indian - born woman and the second person in space from thois subcontinent. After graduating in Aeronautical Engineering from Punjab Engineering College, India, in 1982, Chawla moved to the United States the same year. She obtained her Master’s degree in Aerospace Engineering from the University of Texas in 1984. Later she did her Ph.D. in Aerospace Engineering in 1988 from the University of Colorado. Determined to become an Astronaut even in the face of the Challenger disaster 1986 that broke apart 73 seconds into its flight, leading to the deaths of its seven crew members, Chawla joined NASA in 1988. She began working as a Vice President where she did Computational Fluid Dynamics (CFD) research on vertical take-off and landing. In 1991 she got U.S. citizenship and started her career as a NASA astronaut in 1995. She was selected for her first flight in 1996. She spoke the following word while travelling in the weightlessness of space, “You are just your intelligence.” She had travelled 10.67 million miles, as many as 252 times around the Earth.

Her first space mission (Mission STS 87) began on 19 November 1997 with six other astronauts on the space shuttle Columbia. On her first mission that lasted for 15 days, 16 hours, 34 minutes and 4 seconds, she travelled 6.5 million miles. She was responsible for deploying Spartan Satellite which however malfunctioned, necessitating a spacewalk by Winston Scott and Tako Doi, two of her fellow astronauts, to retrieve the satellite.

In 2000 she was selected for her second space mission STS 107. The mission was repeatedly delayed due to scheduling conflicts and technical problems. On 16 January 2003, Kalpana Chawla finally started her new misson specialists. Chawla’s responsibilites included the Cloumbia. She was one the mission specialists. Chawla’s responsibilities included the Columbia. She was one of the mission specialists. Chawla’s responsibilities included the microgravity experiments, for which the crew conducted nearly 80 experiments studying earth and space science, advanced technology development, and astronaut health and safety.

After a 16 day scientific mission in space, on 1 February 2003, Columbia disintegrated over Texas during its re- entry into the Earth’s atmosphere. All the crew in Columbia including Chawla died only 16 minutes prior to the scheduled landing. Investigation shows that this fatal accident happened due a damage in one of Columbia’s wings caused by a piece of insulating foam from the external fuel tank peeling off during the launch. During the intense heat of re-entry, hot gases penetrated the interior of the wing, destroying the support structure and causing the rest of the shuttle to break down.