



Mechanical Engineering  
Academy of Distinguished Alumni

## **Kim Maureen Ess**

*Distinguished Mechanical Engineer, 2004*

BSME, The University of Texas at Austin, 1987

*Manager, Exploration Mission Planning Office*  
NASA Johnson Space Center

Kim Maureen Ess (Miller) was born into a military family in San Antonio, Texas in 1963. Her father had a career in the U.S. Army and in the Special Forces before retiring and becoming a special-needs shop teacher in San Antonio while her mother took care of the family full-time. After moving eleven times across the U.S., Panama and Germany, her family ended up in Cibolo, Texas where she graduated from Samuel Clemens High School in 1982.

She enrolled in the Fall of 1982 at The University of Texas at Austin to study mechanical engineering. She entered the Co-Operative Engineering Program and worked four semesters with Ingersoll-Rand, three in Houston, Texas and the summer of 1986 at the Ingersoll-Rand gas compressor plant in Manchester, England. While at UT, she was secretary of the Society of Women Engineers (SWE), president of the American Society of Mechanical Engineers (ASME) and a member of the Order of Alec. Some of her fondest memories were in Eastwood's park at the ASME events.

She graduated May, 1987, and began her career in Houston, Texas at the NASA-Johnson Space Center working as a design engineer in the engineering mockup and training facility. After gaining experience as a designer and project engineer of Space Shuttle equipment used in engineering evaluations and astronaut training, she became the manager of the space station mockup and engineering facility

in 1990. In 1994, she transferred into the Flight Systems Branch, and was the subsystem manager of the Tools, Diagnostic Equipment, and Mobility Aids for the Space Shuttle and Space Station Programs. She became the team lead for all astronaut equipment in 1998. She was selected to be a flight crew equipment technical manager in the Space Shuttle Orbiter Project Office in 2001.

Following the Columbia accident in 2003, she managed a critical return-to-flight project that inspected the orbiter thermal protection system prior to re-entry. She transferred to Langley Research Center in Virginia in 2007, and led the test and verification activities for the NASA Orion Launch Abort System. In 2009 she spent six months at the Kennedy Space Center in Florida processing the Space Shuttle and then returned to Johnson Space Center in the Orion Project Office. Revisiting her engineering roots in 2012, she became project manager on systems ranging from a robotically-assembled telescope to robotic lunar landers. She currently manages the NASA Exploration Mission Planning Office, performing end-to-end mission analysis, and providing spacecraft vehicle integration expertise and tools to assess missions, vehicle design concepts, and system performance.

Outside of work, she enjoys volunteering at local schools and charities and spending time with her family and loveable golden retriever.