

Short Biography - Douglas R. Cooke

Doug Cooke is an aerospace consultant with over 46 years' experience in human space flight programs, advising clients on program strategies, program management, contract proposal development, strategic planning and technical matters. In 2011 Doug Cooke retired as Associate Administrator for NASA's Exploration Systems Mission Directorate (ESMD), having been assigned to this position in 2008. As Associate Administrator, he was responsible for the Constellation, Space Launch System (SLS), the Orion crew vehicle, Ground Systems Development and Operations, Lunar Reconnaissance Orbiter, Lunar Crater Observation and Sensing Satellite, Commercial Cargo and Crew, Human Research and Exploration Technology Programs. The development programs were responsible for design and manufacture of flight vehicles and hardware systems for human exploration into deep space, including the Moon, Near Earth Asteroids, Mars and its moons and other destinations. The research programs developed critical technologies, new capabilities, and human research to support future human spacecraft and exploration missions. Responsibilities also included partnering with industry to develop commercial vehicles for cargo and crew transportation to and from low Earth orbit and the International Space Station. In his last year at NASA, Doug Cooke led the directorate and program teams in the analysis, designs and establishment of the Orion Multipurpose Crew Vehicle and the Space Launch System. He personally presented the proposals at agency level meetings, where the administrator approved these programs.

Doug Cooke has 38 years of unique experience at NASA, with 32 years at Johnson Space Center and 6 at NASA Headquarters. He held significant responsibilities during critical periods of the Space Shuttle, Space Station and Exploration Programs, including top management positions in all three programs.

Doug Cooke's first major challenge began in 1975 when he was tasked with defining and implementing the entry aerodynamic flight test program for the Space Shuttle. He led this effort through the Approach and Landing Tests in 1977, and initial orbital flights of the Space Shuttle beginning in 1981 through 1984, opening flight constraints to meet entry design specifications.

Doug Cooke led the Analysis Office when the Space Station Program Office was first organized in 1984 at the Johnson Space Center. He led the work that defined the Space Station configuration, many of its design details, technical attributes and requirements.

Following the Space Shuttle Challenger accident, Doug Cooke was assigned to the Space Shuttle Program Office. He helped lead a Civil Service and contractor team to provide the system engineering and integration function that resulted in the return of the Space Shuttle to flight on September 29, 1988. He reached the position of Deputy Manager of the Space Shuttle Engineering Integration Office.

Doug Cooke has played a pivotal role in planning for human space exploration into deep space beginning in 1989. He helped to lead a NASA team that produced the "90 Day Study" on lunar and Mars exploration. He was subsequently assigned to the Synthesis Group led by Lt. General Tom Stafford, Gemini and Apollo Astronaut. The

team produced a report for the White House entitled "America at the Threshold: America's Space Exploration Initiative." Doug Cooke was selected to be the Manager of the Exploration Programs Office at JSC, where he initiated and led NASA agency-wide studies for the human return to the Moon, and exploration of Mars.

In March of 1993, the agency undertook the redesign of Space Station Freedom. Doug Cooke was assigned the responsibility of leading the engineering and technical aspects of the redesign. He was subsequently chosen to serve in the Space Station Program Office as Vehicle Manager, leading and managing the design, hardware development and systems engineering and integration for the International Space Station. From April to December of 1996, He served as Deputy Manager of the Space Station Program Office.

In 1996, strategic emphasis was again placed on NASA planning for human exploration beyond Low Earth Orbit. Doug Cooke served as manager for the Advanced Development Office at the Johnson Space Center. He provided NASA leadership for the planning of human missions beyond Earth orbit; including the Moon, Mars, libration points, and asteroids. This team developed integrated human and robotic mission objectives, defined investment strategies for exploration technologies, and managed NASA exploration mission architecture analyses. He was detailed to NASA headquarters during portions of this period to contribute to headquarters level strategies for human exploration.

In 2003, Doug Cooke served as NASA technical advisor to the Space Shuttle Columbia Accident Investigation Board from the time of the accident to the publishing of the report. He made significant contributions to forensic analysis of the Columbia debris and to the education of the Investigation Board in various aspects of the Shuttle design, program, operations and interpretation of investigation data.

Doug Cooke served as Deputy Associate Administrator for the Exploration Systems Mission Directorate, NASA Headquarters, from 2004 until 2008. In 2008 he became Associate Administrator. He made significant contributions to the structuring of its human exploration programs, defining the program content, budget planning and providing technical and programmatic leadership. Doug Cooke also led the efforts to define long term NASA field center assignments for hardware development and operational responsibilities. He was the Source Selection Authority for the major exploration contract competitions. In this role he successfully selected the companies who have been on contract for SLS, Orion and Commercial Cargo. He initiated and led the team of international space agencies in development of the Global Exploration Strategy activity, which resulted in the establishment of the International Space Exploration Coordination Group and the release of the Global Exploration Roadmap.

Doug Cooke's many awards include the SES Presidential Distinguished Rank Award, the SES Presidential Meritorious Rank Award, NASA Distinguished Service Medal, two NASA Exceptional Achievement Medals, the NASA Outstanding Leadership Medal, the NASA Exceptional Service Medal, two JSC Certificates of Commendation, the first

Texas A&M Outstanding Aerospace Engineer Alumni Award, the Space Transportation Association Lifetime Achievement Award, the 2017 Werner Von Braun Astronautics Engineer Award. Most recently, in 2018, he was awarded the Texas A&M Distinguished Aerospace Engineering Alumni Award. Doug Cooke is a graduate of Texas A&M University with a Bachelor of Science degree in Aerospace Engineering.