In Memoriam
In Memoriam

Alan L. Bean
1932–2018

- Fourth person to walk on the Moon as the lunar module pilot on Apollo 12
- Commander of the second mission to the Skylab space station in 1973
- “The artist of Apollo” – after retiring from the Navy and NASA, he devoted himself to painting, to share what he saw and felt walking on the Moon and to record the beginnings of our journey among the stars
In Memoriam

Friedrich (Fred) Begemann
1927–2018

• Made the first determination of a cosmic ray exposure age of a meteorite from combined tritium/3He analysis, setting the stage for the development of a completely new branch in meteoritics

• Director of the Isotope Cosmology Department of the Max Planck Institut für Chemie from 1978 until his retirement in 1995

• Awarded the Leonard Medal of the Meteoritical Society in 1995 for earlier work as well as research that contributed to a refined understanding of cosmic-ray interactions with meteorites
Michael J. S. Belton
1934–2018

• Studied the origin and evolution of planetary systems, the nature of Galilean satellites, the jovian ring system, and the physics of planetary atmospheres

• Leader of the Galileo mission Imaging Science Team and member of the advisory committee that helped define what became the Voyager missions

• Awarded the Gerald P. Kuiper Prize by the Division for Planetary Sciences of the American Astronomical Union in 1995

• Asteroid 3498 Belton is named for him
Jay T. Bergstrahl
1943–2019

• Research on the atmospheres of Venus, Jupiter, Saturn, Uranus, and Io

• At NASA HQ, managed the Planetary Atmospheres research grants program, served as Associate Director for Solar System Exploration, and was Program Scientist for the Galileo, Cassini, Europa Orbiter, and MESSENGER missions, as well as the Discovery Program

• Lead editor of the comprehensive book Uranus, published in 1991 by the University of Arizona Press
Kevin Burke
1929–2018

• One of the foremost experts in the field of plate tectonic theory, who extended his work to the exploration of similar geological processes on other planets

• Director of the Lunar and Planetary Institute (LPI) from 1982–1988

• Awarded the Penrose Medal and the Career Contribution Award by the Geological Society of America in recognition of his pioneering research in geology
In Memoriam

Von R. Eshleman
1924–2017

• Pioneer in using spacecraft radio signals for precise measurements in planetary exploration

• Co-founder of the Stanford Center for Radar Astronomy in 1962

• Led the Voyager Radio Science Team through the Jupiter encounters in 1979

• Advised NASA and the National Bureau of Standards, and briefly served as the Deputy Director of the Office of Technology Policy and Space Affairs in the U.S. Department of State
In Memoriam

Christine Floss
1961–2018

• A fellow of the Meteoritical Society for her expertise in the trace-element and isotopic analysis of planetary materials, meteorites, and pre-solar grains

• Asteroid 6689 Floss is named for her

• Member of the Antarctic Search for Meteorites (ANSMET) team in 2014-2015, member of the Antarctic Meteorite Working group, the Curation and Analysis Planning Team for Extraterrestrial Materials (CAPTEM), the council of the Meteoritics Society, and served as an associate editor for Meteoritics and Planetary Science from 2005-2015
In Memoriam

Erik Hauri
1966–2018

- As a staff scientist at Carnegie’s Department of Terrestrial Magnetism, he established one of the best ion microprobe laboratories in the world, where his push to improve the instruments led to the ability to detect the existence of water in volcanic rocks from the Moon, challenging longstanding theories.
- Awarded the James B. Macelwane Medal by the American Geophysical Union (AGU) in 2000, and the Houtermans Award in 2000 by the European Association of Geochemistry.
- Named a AGU Fellow in 2000 and a Fellow of the Geochemical Society and European Association of Geochemistry in 2015.
In Memoriam

John Longhi
1946–2018

• Made substantial contributions to the understanding of basaltic phase equilibria, the origin of lunar basalts, and the causes of the chemical differences between lunar, terrestrial, and meteorite basalts

• Fellow of the Mineralogical Society of America

• Awarded the National Science Foundation Fellowship, the Harvard University Graduate National Fellowship, and the Yale University Junior Faculty Fellowship
In Memoriam

Ian Stewart McCallum
1937–2018

• Made outstanding contributions to the understanding of lunar crustal rock suites and the magmatic evolution of the Moon

• Conducted the first modern stratigraphic study of the Stillwater Complex in the Beartooth Mountains of Montana, and developed petrologic models to account for the unusual layering and the origin of its platinum-group element deposits

• Appointed to the faculty at the University of Washington in 1970, where he spent the rest of his career, retiring in 2010
In Memoriam

Verne R. Oberbeck
1936–2018

• Designed and built a “gun” to study impact cratering on the Moon, and contributed greatly to determining the lunar landing sites for the early Apollo missions

• Made pioneering experimental, observational, and computational contributions to the understanding of the cratering process. The concepts he introduced profoundly changed the then-current interpretations of major planetary surface features, including the geologic context of the Apollo samples, especially those from Apollo 14.

• He wrote more than 100 scientific publications covering lunar and planetary cratering, and received the H. Julian Allen Award for the outstanding scientific paper of 1970.
In Memoriam

Nancy Roman
1925–2018

• First woman to hold a senior leadership position at NASA

• Received her Ph.D. in astronomy from the University of Chicago in 1949 and remained there as a research associate until 1955 when she joined the Radio Astronomy Branch of the Naval Research Laboratory

• Joined NASA in 1959 and became chief of the Astronomy and Relativity Programs in 1960

• Best known as the champion of the project that became the Hubble Space telescope, which launched in 1990 and is still in operation today
In Memoriam

Bradford A. Smith
1931–2018

• Began his career as an astronomer with the U.S. Army Map Service working at White Sands Missile Range in New Mexico

• Served as the leader of the imaging team for Voyager 1 and 2 and deputy team leader for the Mariner 9 imaging team. He also served on the science teams for Mariner 6 and 7, Viking 1 and 2, the Soviet Vega mission to Halley’s Comet, the Soviet Phobos mission to Mars, and the Wide Field/Planetary Camera team for the Hubble Space Telescope

• Awarded the NASA Medal for Exceptional Scientific Achievement four times, and asteroid 8553 Bradsmith is named for him
Paul D. Spudis
1952–2018

• Deputy Director of the LPI from 1999 to 2002
• At President G.W. Bush’s request, served on the 2004 Presidential Commission on the Implementation of U.S. Space Exploration Policy
• Deputy Science Team leader of the Clementine mission to the Moon
• Recipient of the Columbia Medal from the American Society of Civil Engineers’ Aerospace Division (2016), the National Space Society’s Space Pioneer award (2011), the Theodore von Karman medal from the American Institute of Aeronautics and Astronautics (2006), the NASA Distinguished Public Service medal (2004), and the Aviation Week and Space Technology Laurels award (1994). Asteroid 7560 Spudis is named in his honor.
William (Bill) R. Ward
1944–2018

• Preeminent theoretician who made seminal contributions to the understanding of planetary dynamics and solar system formation

• A Fellow of the American Academy of Arts & Sciences (2012), a Fellow of the American Geophysical Union (2005), a Fellow of the American Association for the Advancement of Science (2006), and an Alumnus of Distinction from the University of Missouri, Kansas City (2006)

• Recipient of the Kuiper Prize (2011), the Brouwer Award (2004), and asteroid 7812 Billward is named for him
In Memoriam

John Edward Westfall
1938–2018

• Professor of Geography and Environmental Sciences at San Francisco State University from 1968 to 2005

• Served the Association of Lunar and Planetary Observers (ALPO) including as Director 1985–1990, and Executive Director 1990–1995

• Expert in geodesy and mapping who led the systematic and coordinated effort to map the south polar region of the Moon

In Memoriam

John Young
1930–2018

- NASA’s longest serving astronaut, he flew on two Gemini missions, two Apollo missions, and two Space Shuttle missions
- Commander of Apollo 16 and the ninth person to walk on the Moon
- Commander of the first Space Shuttle mission
- Awards include the Congressional Space Medal of Honor, NASA Distinguished Service Medal, and the General James E. Hill Lifetime Space Achievement Award. Inducted into the National Aviation Hall of Fame in 1988 and Astronaut Hall of Fame in 1993.