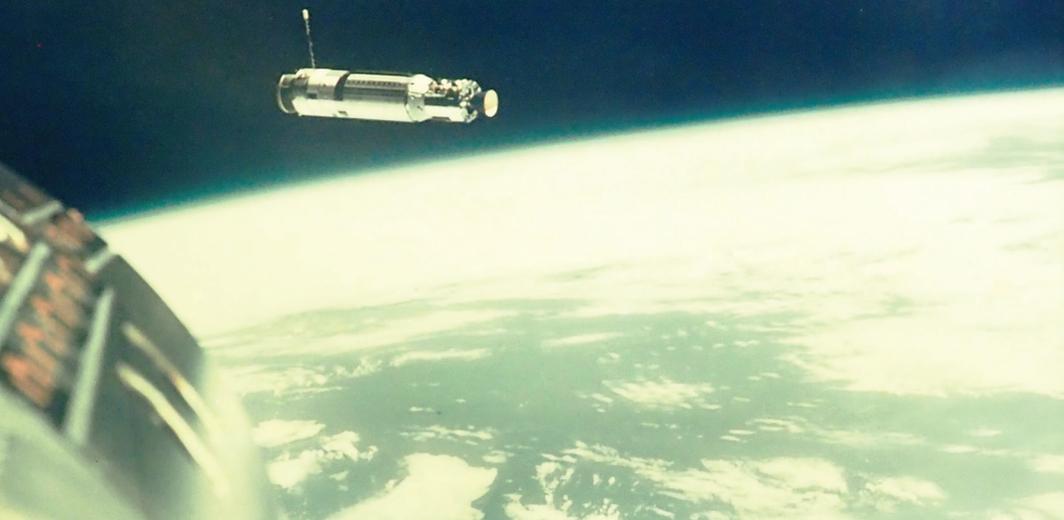
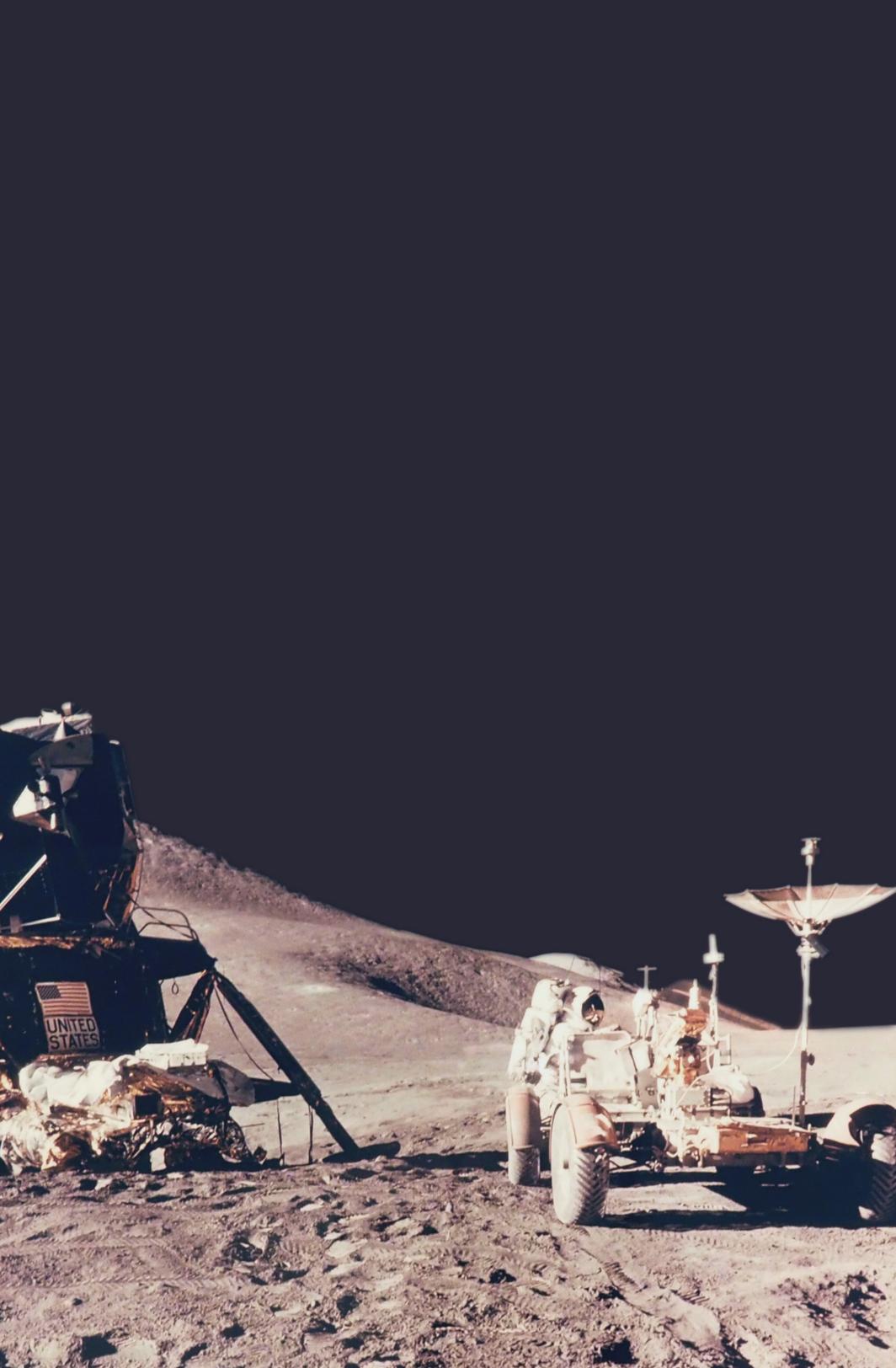


IMAGES FROM SPACE THAT FIRE THE IMAGINATION

JUNE 3RD – AUGUST 2ND

THE BO BARTLETT CENTER







THE BO BARTLETT CENTER
COLLEGE OF THE ARTS, COLUMBUS STATE UNIVERSITY

The Bo Bartlett Center
921 Front Ave
Columbus, Georgia 31901

Tuesday – Saturday:
11 a.m. – 4 p.m.



Coca-Cola
SPACE SCIENCE
CENTER

Coca Cola Space Science Center
701 Front Avenue
Columbus, Georgia 31901

Monday Friday:
10 a.m. – 4 p.m.
Saturday
10:30 a.m. – 5 p.m.

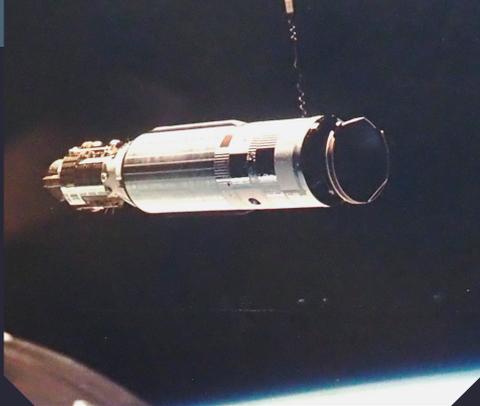


COLUMBUS STATE
UNIVERSITY



During a tumultuous period in American history, the National Aeronautics and Space Administration (NASA) selected a new team of explorers to venture into a hostile but fascinating frontier. Against the background of a tense competition of world ideologies, the United States began to send humans into space, first with Project Mercury, then Project Gemini and the Apollo Program.

Among America's early space explorers was David Randolph Scott, an Air Force test pilot and Aeronautical Engineer with degrees from University of Michigan and the Massachusetts Institute of Technology. NASA selected Dave Scott into its third group of astronauts in 1963. Scott would make three trips to space and participate in some historic "firsts" for the American space program.



Agena Docking Target Vehicle

Dave Scott first flew into space on March 16, 1966 as a member of the two-person crew for Gemini VIII with fellow astronaut, Neil Armstrong. The goal of Gemini VIII was to perform the first-ever docking of two spacecraft in orbit. A robotic *Agena* Target Vehicle already had been launched into a circular orbit and oriented itself to the correct attitude for the docking. Gemini VIII first would dock with *Agena* and then perform a series of maneuvers demonstrating control of the joined vehicles. The next planned event was for Scott to perform a two-hour space walk before the vehicles would separate, and the astronauts would return home.

The mission was going well as the combined efforts of astronauts Armstrong and Scott resulted in the first-ever successful docking of two spacecraft. However, shortly after the docking of Gemini VIII, the joined spacecraft began to experience sudden and uncontrolled movements which placed the spacecraft into a roll. Armstrong corrected the roll, but it immediately resumed. Making matters worse, Gemini VIII had moved into a portion of its orbit where communication with the ground was impossible. Now the vehicles were rolling, and the crew did not have support from the

ground team. The crew surmised that the *Agena's* control thrusters were misfiring and decided to abort the mission and separate from the robot ship. However, after separation, they realized the misfiring thruster was on their own Gemini vehicle. And without the additional mass of *Agena*, Gemini was now tumbling at a dangerous rate of 296 degrees per second. The astronauts were beginning to experience tunnel vision, and a fatal blackout was becoming a real possibility. In this extremely stressful circumstance, Command pilot Neil Armstrong powered down the control thrusters and engaged the separate re-entry thruster system. After nearly 30 minutes, Armstrong was able to regain control of the Gemini capsule and the astronauts returned safely to the Earth. In an episode of the PBS program, *Nova*, Scott would later say of Armstrong, *"The guy was brilliant. He knew the system so well. He found the solution, he activated the solution, under extreme circumstances ... it was my lucky day to be flying with him."*

David Scott's second mission to space was aboard Apollo 9, which launched on March 3, 1969. The Apollo 9 mission featured three astronauts: James McDivitt, David Scott, and Rusty Schweickart. McDivitt served as the mission commander, Scott was the command module pilot, and Schweickart was the lunar module pilot. The Apollo 9 flight was a very important dress rehearsal for many of the untried elements that would be required for the successful landing on the Moon by Apollo 11, just four months and thirteen days later. Apollo 9 was the first time both the Command and Service Module (CSM)

and the Lunar Module (LM), designed to land astronauts on the Moon, were flown with a crew. The mission included testing the LM's engines, landing and rendezvous radars, navigation systems, and docking procedures. Apollo 9 also marked the first manned Apollo docking, the first docked service propulsion system burn, the first manned Apollo undocking, and the first manned LM to CSM docking. Additionally, it was the first mission in the Apollo program to allow call signs for the spacecraft. The CSM was nicknamed "Gumdrop" and the LM was nicknamed "Spider". The names were chosen to reflect the appearance of the spacecraft, with the command module resembling a wrapped gumdrop and the lunar module resembling a spider with its landing legs deployed. The mission lasted for 10 days, 1 hour, and 54 seconds, concluded on March 13, 1969, and was a complete success. Apollo 9 was a crucial step in the Apollo program, proving the LM's functionality and setting the stage for the lunar landing.



Astronaut David Scott performs a stand-up EVA from the Command Module "Gumdrop" as seen from The Lunar Module "Spider."

David Scott's third flight to space was as Commander of Apollo 15, which launched on July 26, 1971. With crewmates Al Worden and James Irwin, the Apollo 15 crew became the fourth mission to land humans on the surface of the Moon. This mission was uniquely dangerous because their landing site had been chosen near the Hadley Rille in the Moon's Apennine Mountain range on the edge of the Mare Imbrium impact basin. This rocky and treacherous terrain made finding a smooth landing site particularly challenging. The Apollo 15 Lunar Module touched down safely on July 30, 1971. A unique feature of the Apollo 15 mission was the inclusion of a Lunar Roving Vehicle (LRV), or "Moon Rover." The LRV was deployed from underneath the LM, and Dave Scott became the first person in history to drive a car on the surface of another world.



Apollo 15 Commander Dave Scott and Lunar Module Pilot Jim Irwin seated in the Lunar Rover, with Command Module Pilot Al Worden standing next to the Apollo 15 Particles and Fields Subsatellite.

Scott and Irwin spent three days on the Moon and made three lengthy drives using the LRV to travel over 17 miles on the lunar surface. They climbed the foothills of the Apennines, explored the edge Hadley Rille, and collected about 170 pounds of lunar rocks and soil samples. One of their most important discoveries was the "Genesis rock," an anortho-

site rock, considered a piece of the Moon's primordial crust, and estimated to be about 4 billion years old. The LRV was engineered, designed, and tested in just 17 months. The Apollo 15 crew demonstrated that the unique vehicle performed well and contributed greatly to the scientific outcomes of the mission. Apollo 15's legacy is rich in scientific discoveries, technological advancements, and an

expanded understanding of the Moon. It featured extensive science operations, including the largest collection of lunar samples at the time and the deployment of the Scientific Instrument Module, which contained a panoramic camera, a gamma ray spectrometer, and a mapping camera. The mission also pioneered the use of geological training for astronauts, influencing current and future space missions.

Following his flights to space, David Scott served as the director of NASA's Dryden (now Armstrong) Flight Research Center in Edwards, California from April 18, 1975 to October 30, 1977. Among Scott's special honors are two NASA Distinguished Service Medals, the NASA Exceptional Service Medal, two Air Force Distinguished Service Medals, the Air Force Distinguished Flying Cross, and the Air Force Association's David C. Schilling Trophy. Scott is a Fellow of the American Astronautical Society, and the Society of Experimental Test Pilots. In 2024, Scott was promoted to the rank of Brigadier General for his meritorious service to the United States of America.

The items in this exhibit are from David Scott's personal collection, donated to Columbus State University's Coca-Cola Space Science Center via the very generous contribution of Dave's brother, Tom Scott.

Dr. Shawn Cruzen
Director
Coca-Cola Space Science Center



