

apollo 17

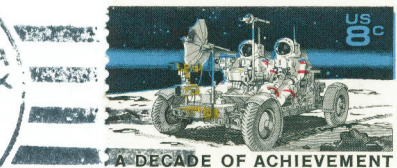


APOLLO 17

FINAL MANNED U.S.

LUNAR LANDING

MISSION



FACTS ON APOLLO 17 MISSION

THE CREW

Commander — Eugene A. Cernan, Captain USN
Command Module Pilot — Ronald E. Evans, Captain, USN
Lunar Module Pilot — Harrison H. Schmitt, PhD

THE SPACECRAFT

Command Module — "America"
Lunar Module — "Challenger"

MISSION DURATION

Lasted 12 days, 13 hours, 51 minutes

LAUNCH

December 7, 1972, 12:33 a.m. EST, December 6, 1972, 11:33 p.m. CST, from Pad 39-A, Kennedy Space Center, Florida, aboard a Saturn V launch vehicle.

LUNAR ORBIT

Spacecraft was placed in lunar orbit at 2:48 p.m. EST on December 10.

LUNAR LANDING

The lunar module, "Challenger" touched down on the Taurus-Littrow site at 1:55 p.m. December 11. Landing point was approximately 20 degrees, 12 minutes North latitude and 30 degrees, 45 minutes East longitude.

LUNAR SURFACE OPERATIONS

1. First lunar surface extra vehicular activity (EVA) began at 6:55 p.m. December 11. Commander Cernan and Lunar Module Pilot Schmitt deployed and drove the electric powered lunar roving vehicle (LRV), traversed the lunar surface, collected samples, deployed the fifth array of geophysical instruments on the Moon, the Apollo Lunar Surface Experiments Package (ALSEP). Duration of EVA was 7 hours 12 minutes.

2. The second EVA began December 12 at 6:17 p.m. Cernan and Schmitt clocked 19 kilometers (12 nautical miles) on the LRV odometer, carried out geological observations and collected samples for 7 hours 37 minutes.

3. The crew began their last EVA on December 13 at 5:23 p.m. An additional 11.6 kilometers (six miles) was clocked on the LRV while the astronauts continued their observations and sample collection. Duration of EVA 3 was 7 hours 17 minutes. Total distance traversed by LRV was 35 kilometers (22 nautical miles).

LUNAR ORBITAL OPERATIONS

Command module pilot Evans orbited the Moon in his spacecraft, "America", for 3 days, 3 hours, while Cernan and Schmitt explored the lunar surface. Evans operated a complex array of Scientific instruments and lunar mapping and panoramic cameras.

LIFTOFF FROM THE MOON

"Challenger" was launched from the lunar surface at 5:55 p.m. December 14 and re-docked with "America" a little more than two hours later.

TRANSEARTH AND EVA

On December 14, the Apollo 17 crew jettisoned the lunar module, then fired the main rocket engine at 6:35 p.m. December 16 to thrust toward Earth.

Command module pilot Evans egressed from the spacecraft at 3:27 p.m. on December 17 and retrieved film canisters from the service module bay. Duration of the EVA was 1 hour 7 minutes.

SPLASHDOWN

Apollo 17 landed in the Pacific Ocean December 19 at 2:24 p.m. Impact point was approximately 166 degrees, 7 minutes West longitude and 17 degrees, 53 minutes South latitude. The spacecraft splashed down 6.4 kilometers (3.5 nautical miles) from the recovery ship, USS Ticonderoga.

APOLLO 17 ACHIEVEMENTS

- * Sixth Manned Lunar Landing
- * First Geologist Astronaut on Lunar Surface
- * Longest Lunar Surface Stay Time (74 hours 59 minutes 38 seconds)
- * Longest single Lunar Surface EVA Time (7 hours 37 minutes 21 seconds)
- * Longest Total Lunar Surface EVA Time (22 hours 5 minutes 6 seconds)
- * Longest Lunar Distance Traversed with LRV on One EVA
(19 kilometers, 12 nautical miles)
- * Longest Total Distance Traversed with LRV (35 km (22nm))
- * Longest Apollo Mission (301 hours 51 minutes)
- * Most samples returned to Earth (115 kg (250 lbs))
- * Longest Time in Lunar Orbit (147 hours, 48 minutes)

APOLLO

MISSION HIGHLIGHTS

Mission/Crew	Spacecraft Names Command Module Lunar Module	Dates	Flight Time (Hrs:Min:Sec)	Remarks
Apollo 7 Walter H. Schirra Donn Eisele Walter Cunningham		Lift off: 10/11/68 Splashdown: 10/22/68	260:8:45	First manned Apollo flight demonstrated the spacecraft, crew and support elements. All performed as required.
Apollo 8 Frank Borman James A. Lovell, Jr. William Anders		Lift off: 12/21/68 Splashdown: 12/27/68	147:00:41	History's first manned flight to the vicinity of another celestial body.
Apollo 9 James A. McDivitt David R. Scott Russell L. Schweickart	Gumdrop Spider	Lift off: 3/ 3/69 Splashdown: 3/13/69	241:00:53	First all-up manned Apollo flight (with Saturn V and command, service, and lunar modules). First Apollo EVA. First docking of CSM with LM.
Apollo 10 Thomas P. Stafford John W. Young Eugene A. Cernan	Charley Brown Snoopy	Lift off: 5/18/69 Splashdown: 5/26/69	192:03:23	Apollo LM descended to within 9 miles of Moon and later rejoined CSM. First rehearsal in lunar environment.
Apollo 11 Neil A. Armstrong Michael Collins Edwin E. Aldrin, Jr.	Columbia Eagle	Lift off: 7/16/69 Splashdown: 7/24/69	195:18:35	First landing of men on the Moon. Total stay time: 21 hrs., 36 min.
Apollo 12 Charles Conrad, Jr. Richard F. Gordon, Jr. Alan L. Bean	Yankee Clipper Intrepid	Lift off: 11/14/69 Splashdown: 11/24/69	244:36:25	Second manned exploration of the Moon. Total stay time: 31 hrs., 31 min.
Apollo 13 James A. Lovell, Jr. John L. Swigert, Jr. Fred W. Haise, Jr.	Odyssey Aquarius	Lift off: 4/11/70 Splashdown: 4/17/70	142:54:41	Mission aborted because of service module oxygen tank failure.
Apollo 14 Alan B. Shepard, Jr. Stuart A. Roosa Edgar D. Mitchell	Kitty Hawk Antares	Lift off: 1/31/71 Splashdown: 2/ 9/71	216:01:59	First manned landing in an exploration of lunar highlands. Total stay time: 33 hrs., 31 min.
Apollo 15 David R. Scott Alfred M. Worden James B. Irwin	Endeavour Falcon	Lift off: 7/26/71 Splashdown: 8/ 7/71	295:12	First use of lunar roving vehicle to transport astronauts over Moon's surface. Ground-commanded color television system showed first live TV coverage of LM lift off from Moon. Total EVA time: 19 hrs., 9 min. Total lunar stay time: 66 hrs., 55 min.
Apollo 16 John W. Young Thomas K. Mattingly II Charles M. Duke	Casper Orion	Lift off: 4/16/72 Splashdown: 4/27/72	265:51	Fifth manned exploration of the Moon. Lunar roving vehicle and ground-commanded color television system again used to enhance scientific expeditions on lunar surface. Lunar EVA time: 20 hrs., 14 min. Total lunar stay time: 71 hrs., 14 min.
Apollo 17 Eugene A. Cernan Ronald E. Evans Harrison H. Schmitt	America Challenger	Lift off: 12/ 6/72 Splashdown: 12/19/72	301:51	Sixth and final lunar expedition in the Apollo program. Longest Apollo mission and lunar stay time of the program. One space and three lunar EVAs performed. Lunar EVA time: 22 hrs., 5 min. Total lunar stay time: 74 hrs., 59 min., 38 sec.