Astronauts
Fact Sheet

November 1977
Release 77-231
Astronaut L. Gordon Cooper, his silver suit flickering in the mid-Pacific sun, steps out of his spacecraft "Faith 7" into the deck of the recovery ship after 22 orbits in space, May 15 and 16, 1963. This painting by artist Mitchell Jamieson is exhibited in the National Air and Space Museum, Washington, D.C.

NASA Photo: 65-H-253
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ASTRONAUT FACT SHEET

Of 73 pilots and scientists selected as astronauts since April 1959, 26 are on flight status at the National Aeronautics and Space Administration's Lyndon B. Johnson Space Center, Houston, Tex., and one other, now on other assignment, is available as flight crewman. The number of pilot-astronauts is 17 and 10 are scientist-astronauts.

Seven groups of astronauts have been selected. In Group 1 were the seven Mercury astronauts selected in April 1959. Nine test pilots, Group 2, were selected in September 1962. In Group 3 were 14 pilot-astronauts selected in October 1963. Group 4, the first six scientist-astronauts, was selected in June 1965. In April 1966, 19 pilot-astronauts were selected as Group 5. Group 6, 11 scientist-astronauts, was selected in August 1967. Seven Air Force Manned Orbital Laboratory pilots joined the NASA pilot-astronaut program in August 1969, as Group 7.
# ALPHABETICAL LIST OF THE 73 ASTRONAUTS SELECTED

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<thead>
<tr>
<th>NAME</th>
<th>ASTRONAUT STATUS</th>
<th>GROUP NUMBER</th>
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<td>Collins, Michael</td>
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<td>Young, John W.</td>
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Group 1, Project Mercury Astronauts Selected April 1959

Flight Status

Donald K. Slayton, Civilian, Manager for Approach and Landing Test, Space Shuttle Program Office, JSC.

No Longer on Flight Status


L. Gordon Cooper, Colonel, USAF (Ret.), retired July 1970; is Vice President for Research and Development, WED Enterprises, Glendale, Calif.


Walter M. Schirra, Jr., Captain, USN (Ret.), retired in July 1969. He is Director of Technology Purchase, Johns-Manville Corp., Denver, Colo.

Alan B. Shepard, Jr., Rear Admiral, USN (Ret.), retired from the U.S. Navy and NASA Aug. 1, 1974. He is President of Windward Co., Deer Park, Tex.

Deceased

Virgil I. (Gus) Grissom, Lieutenant Colonel, USAF, died in Apollo spacecraft fire at Kennedy Space Center, Jan. 27, 1967.

Group 2, Test Pilot Astronauts Selected September 1962

Flight Status

John W. Young, Captain, USN (Ret.), Chief, Astronaut Office, Johnson Space Center.
Group 2 (cont'd.)

No Longer on Flight Status

Neil A. Armstrong, Professor of Engineering, University of Cincinnati, effective October 1971. Previously was Deputy Associate Administrator, Aeronautics, NASA Headquarters Office of Advanced Research and Technology, 1970.


Charles Conrad, Jr., Captain, USN (Ret.), retired Feb. 1, 1974. He is Vice President, Marketing, McDonnell Douglas Corp., with offices in Denver, Colo.


James A. Lovell, Jr., Captain, USN (Ret.), is President of Fisk Telephone Systems, Inc., Houston. He served as Deputy Director of Science and Applications, JSC, May 1971-March 1973 when he retired from NASA and the Navy.


Deceased

Elliot M. See, Jr., died in a T-38 jet crash Feb. 28, 1966, Lambert Municipal Airport, St. Louis.

Group 3, Pilot Astronauts Selected October 1963

Flight Status

Alan L. Bean, Captain, USN (Ret.).

No Longer on Flight Status


Eugene A. Cernan, Captain, USN (Ret.), retired from the Navy and NASA July 1, 1976. He is Executive Vice President, International, Coral Petroleum Co., Houston.

Michael Collins, became Assistant Secretary of State for Public Affairs in January 1970. Since February 1971 is Director, National Air and Space Museum, Smithsonian Institution, Washington, D.C.

Walter Cunningham, resigned Aug. 1, 1971. He is now Senior Vice President, 3D/International, Houston.

Group 3 (cont'd.)

Richard F. Gordon, Jr., Captain, USN (Ret.), retired from the Navy and NASA Jan. 1, 1972; John W. Mecom Co., Houston.


Deceased

Charles A. Bassett II, Major, USAF, died in T-38 jet crash with Elliot See, Feb. 28, 1966, at St. Louis.

Roger B. Chaffee, Lieutenant Commander, USN, died in Apollo spacecraft fire, Kennedy Space Center, Jan. 27, 1967.


Group 4, Scientist Astronauts Selected June 1965

Flight Status

Owen K. Garriott, Ph.D. (Electrical Engineering), Assistant Director for Space Sciences, Space and Life Sciences Directorate, Johnson Space Center.

Edward G. Gibson, Ph.D. (Engineering and Physics).

Joseph P. Kerwin, Captain, USN, M.D. (Medicine).
Group 4 (cont'd.)

No Longer on Flight Status

Duane E. Graveline, M.D. (Medicine), resigned for personal reasons in August 1965.

Frank Curtis Michel, Ph.D. (Physics), resigned August 1969 to return to scientific research at Rice University, Houston.


Group 5, Pilot Astronauts Selected April 1966

Flight Status

Vance D. Brand, Civilian.

Joe H. Engle, Colonel, USAF.

Fred W. Haise, Jr., Civilian.

Don L. Lind, Civilian, Ph.D. (Physics).

Jack R. Lousma, Lieutenant Colonel, USMC.

Thomas K. Mattingly, II, Commander, USN.

Bruce McCandless, II, Commander, USN.

Paul J. Weitz, Captain, USN.

No Longer on Flight Status


Gerald P. Carr, Colonel, USMC (Ret.), resigned effective June 25, 1977, to join the Houston consulting engineering firm of Bovay Engineers, Inc., as corporate manager for business development.

-more-
Group 5 (cont'd.)


Ronald E. Evans, Captain, USN (Ret.), resigned effective March 15, 1977, to become executive vice president of Western American Energy Corp. and director of WES-PAC Energy, the coal producing concern of WAEC, in Scottsdale, Ariz.


William R. Pogue, Colonel, USAF (Ret.). On leave of absence from NASA.


John L. Swigert, Jr., appointed Staff Executive Director, Committee on Science and Astronautics, House of Representatives in April 1973. Resigned from NASA and has announced candidacy for U.S. Senate from Colorado.

Alfred M. Worden, Colonel, USAF (Ret.), assigned to NASA Ames Research Center, Mountain View, Calif., September 1972 as Chief, Systems Studies Division. He has been a vice president of High Flight Foundation, Colorado Springs, Colo., since Sept. 5, 1975. Resides in Palm Beach, Fla.

Deceased


-more-
Group 6, Scientist Astronauts Selected August 1967
(All Civilian)

Flight Status


Karl G. Henize, Ph.D. (Astronomy)

William B. Lenoir, Ph.D. (Electrical Engineering)

Story Musgrave, M.D., Ph.D. (Medicine and Physiology)

Robert A. Parker, Ph.D. (Astronomy)

William E. Thornton, M.D. (Medicine)

No Longer on Flight Status


John A. Llewellyn, Ph.D. (Chemistry), resigned for personal reasons, August 1968.

Brian T. O'Leary, Ph.D. (Astronomy), resigned for personal reasons, April 1968.

Donald L. Holmquest, M.D. and Ph.D. (Medicine and Physiology), took leave of absence May 1971 to hold position of assistant professor of Radiology and Physiology, Baylor College of Medicine, Houston. Later resigned from NASA to become Associate Dean of Medicine, Texas A&M University, College Station, Tex. He is now at the Navasota Medical Center, Navasota, Tex.
Group 7, Pilot Astronauts (Former Air Force Manned Orbiting Laboratory Pilots who entered NASA program in August 1969)

Flight Status

Karol J. Bobko, Colonel, USAF
Robert L. Crippen, Commander, USN
Charles G. Fullerton, Lieutenant Colonel, USAF
Henry W. Hartsfield, Jr., Colonel, USAF
Robert F. Overmyer, Lieutenant Colonel, USMC
Donald H. Peterson, Colonel, USAF
Richard H. Truly, Commander, USN
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**MERCURY FLIGHT CREWS**

(See pp. 24-26 for dates and significant facts on missions)

**Mercury Redstone 3**

Flight Pilot:
- Alan B. Shepard, Jr.

Backup Pilot:
- John H. Glenn

**Mercury Redstone 4**

Flight Pilot:
- Virgil I. Grissom

Backup Pilot:
- John H. Glenn

**Mercury Atlas 6**

Flight Pilot:
- John H. Glenn

Backup Pilot:
- M. Scott Carpenter

**Mercury Atlas 7**

Flight Pilot:
- M. Scott Carpenter

Backup Pilot:
- Walter M. Schirra, Jr.

-more-
Mercury Atlas 8

Flight Pilot:
Walter M. Schirra, Jr.

Backup Pilot:
L. Gordon Cooper

Mercury Atlas 9

Flight Pilot:
L. Gordon Cooper

Backup Pilot:
Alan B. Shepard, Jr.

GEMINI FLIGHT CREWS

Gemini 3

Flight Crew:
Commander, Virgil I. Grissom
Pilot, John W. Young

Backup Crew:
Commander, Walter M. Schirra, Jr.
Pilot, Thomas P. Stafford

Gemini 4

Flight Crew:
Commander, James A. McDivitt
Pilot, Edward H. White, II

Backup Crew:
Commander, Frank Borman
Pilot, James A. Lovell, Jr.

-more-
Gemini 5

Flight Crew:

Commander, L. Gordon Cooper
Pilot, Charles Conrad, Jr.

Backup Crew:

Commander, Neil A. Armstrong
Pilot, Elliott J. See

Gemini 6

Flight Crew:

Commander, Walter M. Schirra, Jr.
Pilot, Thomas P. Stafford

Backup Crew:

Commander, Virgil I. Grissom
Pilot, John W. Young

Gemini 7

Flight Crew:

Commander, Frank Borman
Pilot, James A. Lovell, Jr.

Backup Crew:

Commander, Edward H. White, II
Pilot, Michael Collins

Gemini 8

Flight Crew:

Commander, Neil A. Armstrong
Pilot, David R. Scott

Backup Crew:

Commander, Charles Conrad, Jr.
Pilot, Richard F. Gordon, Jr.

-more-
Gemini 9
Flight Crew:
Commander, Thomas P. Stafford
Pilot, Eugene A. Cernan
Backup Crew:
Commander, James A. Lovell, Jr.
Pilot, Edwin E. Aldrin, Jr.

Gemini 10
Flight Crew:
Commander, John W. Young
Pilot, Michael Collins
Backup Crew:
Commander, Alan L. Bean
Pilot, Clifton C. Williams

Gemini 11
Flight Crew:
Commander, Charles Conrad, Jr.
Pilot, Richard F. Gordon, Jr.
Backup Crew:
Commander, Neil A. Armstrong
Pilot, William A. Anders

Gemini 12
Flight Crew:
Commander, James A. Lovell, Jr.
Pilot, Edwin E. Aldrin, Jr.
Backup Crew:
Commander, L. Gordon Cooper
Pilot, Eugene A. Cernan

-more-
APOLLO FLIGHT CREWS

Apollo-Saturn 204

Prime Crew:  (Died in spacecraft fire Jan. 27, 1967, approximately 1 month before mission was scheduled)

Commander, Virgil I. Grissom
Command Module Pilot, Edward H. White, II
Lunar Module Pilot, Roger B. Chaffee

Backup Crew:

Commander, Walter M. Schirra, Jr.
Command Module Pilot, Donn F. Eisele
Lunar Module Pilot, Walter Cunningham

Apollo 7

Flight Crew:

Commander, Walter M. Schirra, Jr.
CM Pilot, Donn F. Eisele
LM Pilot, Walter Cunningham

Backup Crew:

Commander, Thomas P. Stafford
CM Pilot, John W. Young
LM Pilot, Eugene A. Cernan

Apollo 8

Flight Crew:

Commander, Frank Borman
CM Pilot, James A. Lovell, Jr.
LM Pilot, William A. Anders

Backup Crew:

Commander, Neil A. Armstrong
CM Pilot, Edwin E. Aldrin, Jr.
LM Pilot, Fred W. Haise, Jr.

-more-
Apollo 9

Flight Crew:

Commander, James A. McDivitt  
CM Pilot, David R. Scott  
LM Pilot, Russell L. Schweickart

Backup Crew:

Commander, Charles Conrad, Jr.  
CM Pilot, Richard F. Gordon, Jr.  
LM Pilot, Alan L. Bean

Apollo 10

Flight Crew:

Commander, Thomas P. Stafford  
CM Pilot, John W. Young  
LM Pilot, Eugene A. Cernan

Backup Crew:

Commander, L. Gordon Cooper  
CM Pilot, Donn F. Eisele  
LM Pilot, Edgar D. Mitchell

Apollo 11

Flight Crew:

Commander, Neil A. Armstrong  
CM Pilot, Michael Collins  
LM Pilot, Edwin E. Aldrin, Jr.

Backup Crew:

Commander, James A. Lovell, Jr.  
CM Pilot, William A. Anders  
LM Pilot, Fred W. Haise, Jr.

-more-
Apollo 12

Flight Crew:

Commander, Charles Conrad, Jr.
CM Pilot, Richard F. Gordon, Jr.
LM Pilot, Alan L. Bean

Backup Crew:

Commander, David R. Scott
CM Pilot, Alfred M. Worden
LM Pilot, James B. Irwin

Apollo 13

Flight Crew:

Commander, James A. Lovell, Jr.
CM Pilot, John L. Swigert, Jr.*
LM Pilot, Fred W. Haise, Jr.

Backup Crew:

Commander, John W. Young
CM Pilot, John L. Swigert, Jr.
LM Pilot, Charles M. Duke, Jr.

Apollo 14

Flight Crew:

Commander, Alan B. Shepard, Jr.
CM Pilot, Stuart A. Roosa
LM Pilot, Edgar D. Mitchell

Backup Crew:

Commander, Eugene A. Cernan
CM Pilot, Ronald E. Evans
LM Pilot, Joe H. Engle

*Substituted for Thomas K. Mattingly, II, who had been exposed to, but did not contract, measles.
Apollo 15

Flight Crew:

Commander, David R. Scott
CM Pilot, Alfred M. Worden
LM Pilot, James B. Irwin

Backup Crew:

Commander, Richard F. Gordon, Jr.
CM Pilot, Vance D. Brand
LM Pilot, Harrison H. Schmitt

Apollo 16

Flight Crew:

Commander, John W. Young
CM Pilot, Thomas K. Mattingly, II
LM Pilot, Charles M. Duke, Jr.

Backup Crew:

Commander, Fred W. Haise, Jr.
CM Pilot, Stuart A. Roosa
LM Pilot, Edgar D. Mitchell

Apollo 17

Flight Crew:

Commander, Eugene A. Cernan
CM Pilot, Ronald E. Evans
LM Pilot, Harrison H. Schmitt

Backup Crew:

Commander, John W. Young
CM Pilot, Stuart A. Roosa
LM Pilot, Charles M. Duke, Jr.

-more-
SKYLAB CREWS

First Manned Mission

Flight Crew:

Commander, Charles Conrad, Jr.
Science Pilot, Dr. Joseph P. Kerwin
Pilot, Paul J. Weitz

Backup Crew:

Commander, Russell L. Schweickart
Science Pilot, Dr. Story Musgrave
Pilot, Bruce McCandless, II

Second Manned Mission

Flight Crew:

Commander, Alan L. Bean
Science Pilot, Dr. Owen K. Garriott
Pilot, Jack R. Lousma

Backup Crew:

Commander, Vance D. Brand
Science Pilot, Dr. Don L. Lind
Pilot, Dr. William E. Lenoir

Third Manned Mission

Flight Crew:

Commander, Gerald P. Carr
Science Pilot, Dr. Edward G. Gibson
Pilot, William R. Pogue

Backup Crew:

(Same backup crew as second manned mission)

-more-
APOLLO SOYUZ TEST PROJECT CREW

Prime Crew:

Commander, Thomas P. Stafford
Command Module Pilot, Vance D. Brand
Docking Module Pilot, Donald K. Slayton

Backup Crew:

Commander, Alan L. Bean
Command Module Pilot, Ronald E. Evans
Docking Module Pilot, Jack R. Lousma

Support Crew:

Richard H. Truly
Robert F. Overmyer
Robert L. Crippen
Karol J. Bobko

SHUTTLE ORBITER APPROACH AND LANDING TEST FLIGHTS

Crews:

Commander Fred W. Haise, Jr.
Pilot Charles G. Fullerton

(Haise and Fullerton were the crew for Captive Flights 1 and 3, and Free Flights 1, 3 and 5.)

Commander Joe H. Fingle
Pilot Richard H. Truly

(Engle and Truly were the crew for Captive Flight 2, and Free Flights 2 and 4.)

-more-
ASTRONAUTS WHO HAVE FLOWN IN SPACE (43)

One Flight (26)

William A. Anders
Vance D. Brand
M. Scott Carpenter
Gerald P. Carr
Walter Cunningham
Charles M. Duke, Jr.
Donn F. Eisele
Ronald Evans
Owen K. Garriott
Edward G. Gibson
John H. Glenn
Fred W. Haise, Jr.
James B. Irwin
Joseph P. Kerwin
Jack R. Lousma
Thomas K. Mattingly, II
Edgar D. Mitchell
William R. Pogue
Stuart A. Roosa
Harrison H. Schmitt
Russell L. Schweickart
Donald K. Slayton
John L. Swigert, Jr.
Paul J. Weitz
Edward H. White, II
Alfred M. Worden

Apollo 8
Apollo Soyuz
Mercury 7
Skylab 4
Apollo 7
Apollo 16
Apollo 7
Apollo 17
Skylab 3
Skylab 4
Mercury 6
Apollo 13
Apollo 15
Skylab 2
Skylab 3
Apollo 16
Apollo 14
Skylab 4
Apollo 14
Apollo 17
Apollo 9
Apollo Soyuz
Apollo 13
Skylab 2
Gemini 4
Apollo 15

Two Flights (10)

Edwin E. Aldrin, Jr.
Neil A. Armstrong
Alan L. Bean
Frank Borman
Michael Collins
L. Gordon Cooper
Richard F. Gordon, Jr.
Virgil I. Grissom
James A. McDivitt
Alan B. Shepard, Jr.

Gemini 12, Apollo 11
Gemini 8, Apollo 11
Apollo 12, Skylab 3
Gemini 7, Apollo 8
Gemini 10, Apollo 11
Mercury 9, Gemini 5
Gemini 11, Apollo 12
Mercury 4, Gemini 3
Gemini 4, Apollo 9
Mercury 3, Apollo 14

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<th>Three Flights (3)</th>
<th>Four Flights (4)</th>
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<tr>
<td>Eugene A. Cernan</td>
<td>Gemini 9, Apollo 10, Apollo 17</td>
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<td>Walter M. Schirra</td>
<td>Mercury 8, Gemini 6, Apollo 7</td>
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<td>David R. Scott</td>
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<td>Gemini 5, Gemini 11, Apollo 12, Skylab 2</td>
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<td>Charles Conrad, Jr.</td>
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<td>James A. Lovell, Jr.</td>
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<td>John W. Young</td>
<td>Gemini 6, Gemini 9, Apollo 10, Apollo Soyuz</td>
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<td>Thomas P. Stafford</td>
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<td>Mission</td>
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<td>Grissom, Young</td>
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<td>Gemini-Titan VIII</td>
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<td>Gemini-Titan IX-A</td>
<td>Stafford, Cernan</td>
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<td>Flight</td>
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<td>---------------------------------------------------------------------------------</td>
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<td>Gemini-Titan X</td>
<td>Young, Collinle July 18 to 21, 1966. First use of Agena target vehicle's propulsion systems, spacecraft also rendezvoused with Gemini VIII target vehicle. Collins had 49 minutes of EVA standing in hatch, 39-minute EVA to retrieve experiment from Agena VIII. 43 revs, 3.4 miles, USS Guadalcanal (A).</td>
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<tr>
<td>Gemini-Titan XII</td>
<td>Lovell, Aldrin, Nov 11 to 15, 1966. Final Gemini flight. Aldrin logged 2-hour 29 minute standup EVA, 55 minute standup EVA, and 2-hour 6-minute EVA for Gemini record total of 5 hours 30 minutes of extravehicular activity. 59 revs, 2.6 miles, USS Wasp (A).</td>
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<tr>
<td>Apollo-Saturn 7</td>
<td>Schirra, Eisele, Cunningham, Oct 11 to 22, 1968. First manned flight of Apollo spacecraft command-service module only, 163 revolutions, USS Essex (A) — all Apollo spacecraft splashed down within 10 miles of predicted landing point.</td>
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<tr>
<td>Apollo-Saturn 8</td>
<td>Borman, Lovell, Anders, Dec 21 to 27, 1968. First flight to the Moon (command-service module only), views of lunar surface televised to Earth, 10 revolutions of the Moon, USS Yorktown (P).</td>
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<tr>
<td>Apollo-Saturn 11</td>
<td>Armstrong, Collins, Aldrin, July 16 to 24, 1969. First lunar landing, call signs Columbia and Eagle, lunar stay time 21 hours 36 minutes 21 seconds, Armstrong and Aldrin EVA (hatch open to hatch close) 2 hours 31 minutes 40 seconds, lunar surface samples 485 pounds, 30 revs, USS Hornet (P).</td>
</tr>
<tr>
<td>Apollo-Saturn 12</td>
<td>Conrad, Gordon, Bean, Nov 14 to 24, 1969. Yankee Clipper and Intrepid, stay time 31 hours 31 minutes, Conrad and Bean EVAs 3 hours 56 minutes and 3 hours 49 minutes, lunar samples 74.7 pounds plus parts from Surveyor 3 unmanned spacecraft. 45 revs, USS Hornet (P).</td>
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<tr>
<td>Apollo Saturn 13</td>
<td>Lovell, Swigert, Haise, Apr 11 to 17, 1970. Odyssey and Aquarius, mission aborted after service module oxygen tank ruptured, using lunar module oxygen and power until just before reentry, crew returned safely to Earth, USS Iwo Jima (P).</td>
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<tr>
<td>Apollo-Saturn 14</td>
<td>Shepard, Mitchell, Scott, Haise, Jan 31 to Feb 9, 1971. Kitty Hawk and Antares, stay time 33 31 Shepard and Mitchell EVAs 4 48 and 3 45, samples 96 pounds 34 revs, USS New Orleans (P).</td>
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<tr>
<td>Apollo Saturn 15</td>
<td>Scott, Worden, Mitchell, July 26 to Aug 7, 1971. Endeavour and Falcon, first use of lunar roving vehicle, stay time 66 55, Scott standup EVA 33 minutes, Scott and Irwin EVAs 6 33, 7 12 and 4 50, Worden trans-Earth EVA 38 minutes, samples 170 pounds, 74 revs, USS Okinawa (P).</td>
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<td>Apollo-Saturn 16</td>
<td>Young, Mattingly, Duke, April 16 to April 27, 1972. Casper and Orion, stay time 71 02, Young and Duke EVAs 7 11, 7 23 and 5 40, Mattingly trans-Earth EVA 1 24, samples 213 pounds, 64 revs, USS Ticonderoga (P).</td>
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<td>Apollo Saturn 17</td>
<td>Cernan, Evans, Schmitt, Dec 7 to Dec 19, 1972. America and Challenger, stay time 75 00, Cernan and Schmitt EVAs 7 12, 7 37 and 7 15, Evans trans-Earth EVA 1 06, samples 243 pounds, 75 revs, USS Ticonderoga (P). First night launch, Dec. 5, in Central, Mountain and Pacific time zones.</td>
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<td>Skylab 3</td>
<td>Bean, Garriott,</td>
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<td>Lousma</td>
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<td>Skylab 4</td>
<td>Carr, Gibson,</td>
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<td>Soyuz Test</td>
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### ASTRONAUTS COMPARATIVE FLIGHT TIME

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<th>FLIGHTS</th>
<th>HRS., MINS.</th>
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<td>Gibson</td>
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<td>Lovell</td>
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<td>*Scott (7th)</td>
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<td>Stafford</td>
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*Walked on the lunar surface (in order of walk)

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