

National Aeronautics and
Space Administration



Information Summaries

Astronaut Fact Book



Man must rise above the Earth – to the top of the atmosphere and beyond – for only thus will he fully understand the world in which he lives.

Socrates
500 B.C.

PREFACE

The National Aeronautics and Space Administration (NASA) selected the first group of astronauts in 1959. From 500 candidates having the required jet aircraft flight experience and engineering training as well as height below 5 feet 11 inches, 7 military men became the Nation's first astronauts. The second and third groups chosen included civilians who had extensive flying experience. By 1964, requirements had changed, and emphasis was placed on academic qualifications; in 1965, 6 scientist astronauts were selected from a group of 400 applicants who had a Doctorate or equivalent experience in the natural sciences, medicine, or engineering. The group named in 1978 was the first of space shuttle flight crews and since then, 14 additional groups have been selected with a mix of pilots and mission specialists.

There are currently 50 active astronauts and 35 management astronauts in the program; 196 astronauts have retired or resigned; and 49 are deceased.

Though most of the information in this document pertains only to U.S. Astronauts, several sections are included to provide information about the international astronauts and Cosmonauts who are currently partners with the U.S. Space Program participating in the International Space Station endeavor.

The space flights and statistics listed in this publication resulted from the vertical takeoff of an American space vehicle or Soyuz taxi flight to the International Space Station. Astronauts listed (unless otherwise noted) are individuals who participated in the United States astronaut program.

NASA accepts applications for the Astronaut Candidate Program on a continuing basis and selects candidates as needed.

This document is online at:

www.nasa.gov/centers/johnson/about/resources/jsfacts/index.html

Astronaut bios can be found online at: <http://www.jsc.nasa.gov/Bios/index.html>

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1.0 LIST OF U.S. ASTRONAUTS

Astronaut	Entry Year	Group	# of flights	STATUS
Acaba, Joseph M.	2004	19	2	Active
Adamson, James C.	1984	10	2	Former
Akers, Thomas D.	1987	12	4	Former
Aldrin, Buzz	1963	3	2	Former
Allen, Andrew M.	1987	12	3	Former
Allen, Joseph P.	1967	6	2	Former
Altman, Scott D.	1995	15	4	Former
Anders, William A.	1963	3	1	Former
Anderson, Clayton C.	1998	17	2	Former
Anderson, Michael P.	1995	15	2	Deceased
Antonelli, Dominic A.	2000	18	2	Active
Apt, Jerome, III	1985	11	4	Former
Archambault, Lee J.	1998	17	2	Former
Armstrong, Neil A.	1962	2	2	Deceased
Arnold, Richard R., II	2004	19	1	Active
Ashby, Jeffrey S.	1995	15	3	Former
Aunon, Serena M.	2009	20	0	Active
Bagian, James P.	1980	9	2	Former
Baker, Ellen S.	1984	10	3	Former
Baker, Michael A.	1985	11	4	Management
Barratt, Michael R.	2000	18	2	Active
Barry, Daniel T.	1992	14	3	Former
Bassett, Charles A., II	1963	3	0	Deceased
Bean, Alan L.	1963	3	2	Former
Behnken, Robert L.	2000	18	2	Active
Blaha, John E.	1980	9	5	Former
Bloomfield, Michael J.	1995	15	3	Former
Bluford, Guion S., Jr.	1978	8	4	Former
Bobko, Karol J.	1969	7	3	Former
Boe, Eric A.	2000	18	2	Active
Bolden, Charles F., Jr.	1980	9	4	Management
Borman, Frank	1962	2	2	Former
Bowen, Stephen G.	2000	18	3	Active
Bowersox, Kenneth D.	1987	12	5	Former
Brady, Charles E., Jr.	1992	14	1	Deceased
Brand, Vance D.	1966	5	4	Former
Brandenstein, Daniel C.	1978	8	4	Former
Bresnik, Randolph J.	2004	19	1	Active
Bridges, Roy D., Jr.	1980	9	1	Former
Brown, Curtis L., Jr.	1987	12	6	Former

Astronaut	Entry Year	Group #	# of flights	Status
Brown, David M.	1996	16	1	Deceased
Brown, Mark N.	1984	10	2	Former
Buchli, James F.	1978	8	4	Former
Bull, John S.	1966	5	0	Deceased
Burbank, Daniel C.	1996	16	3	Active
Bursch, Daniel W.	1990	13	4	Former
Cabana, Robert D.	1985	11	4	Management
Cagle, Yvonne D.	1996	16	0	Management
Caldeiro, Fernando	1996	16	0	Deceased
Caldwell-Dyson, Tracy E.	1998	17	2	Active
Camarda, Charles J.	1996	16	1	Management
Cameron, Kenneth D.	1984	10	3	Former
Carey, Duane G.	1996	16	1	Former
Carpenter, M. Scott	1959	1	1	Former
Carr, Gerald P.	1966	5	1	Former
Carter, Manley Lanier, Jr.	1984	10	1	Deceased
Casper, John H.	1984	10	4	Management
Cassidy, Christopher J.	2004	19	1	Active
Cernan, Eugene A.	1963	3	3	Former
Chaffee, Roger B.	1963	3	0	Deceased
Chamitoff, Gregory E.	1998	17	2	Active
Chang-Diaz, Franklin R.	1980	9	7	Former
Chapman, Philip K.	1967	6	0	Former
Chawla, Kalpana	1995	15	2	Deceased
Chiao, Leroy	1990	13	4	Former
Chilton, Kevin P.	1987	12	3	Former
Clark, Laurel B.	1996	16	1	Deceased
Cleave, Mary L.	1980	9	2	Former
Clifford, Michael R.	1990	13	3	Former
Coats, Michael L.	1978	8	3	Former
Cockrell, Kenneth D.	1990	13	5	Management
Coleman, Catherine G.	1992	14	3	Active
Collins, Eileen M.	1990	13	4	Former
Collins, Michael	1963	3	2	Former
Conrad, Charles, Jr.	1962	2	4	Deceased
Cooper, L. Gordon, Jr.	1959	1	2	Deceased
Covey, Richard O.	1978	8	4	Former
Creamer, Timothy J.	1998	17	1	Management
Creighton, John O.	1978	8	3	Former
Crippen, Robert L.	1969	7	4	Former
Culbertson, Frank L., Jr.	1984	10	3	Former
Cunningham, Walter	1963	3	1	Former
Curbeam, Robert L., Jr.	1995	15	3	Former
Currie, Nancy J.	1990	13	4	Management

Astronaut	Entry	Group #	# of	Status
Davis, N. Jan	1987	12	3	Former
Drew, Alvin B., Jr.	2000	18	2	Active
Duffy, Brian	1985	11	4	Former
Duke, Charles M., Jr.	1966	5	1	Former
Dunbar, Bonnie J.	1980	9	5	Former
Dutton, James P., Jr.	2004	19	1	Management
Edwards, Joe F., Jr.	1995	15	1	Former
Eisele, Donn F.	1963	3	1	Deceased
England, Anthony W.	1967	6	1	Former
Engle, Joe H.	1966	5	2	Former
Epps, Jeanette J.	2009	20	0	Active
Evans, Ronald E., Jr.	1966	5	1	Deceased
Fabian, John M.	1978	8	2	Former
Ferguson, Christopher J.	1998	17	3	Former
Feustel, Andrew J.	2000	18	2	Active
Fincke, E. Michael	1996	16	3	Active
Fischer, Jack D.	2009	20	0	Active
Fisher, Anna L.	1978	8	1	Management
Fisher, William F.	1980	9	1	Former
Foale, C. Michael	1987	12	6	Active
Ford, Kevin A.	2000	18	2	Active
Foreman, Michael J.	1998	17	2	Management
Forrester, Patrick G.	1996	16	3	Management
Fossum, Michael E.	1998	17	3	Active
Freeman, Theodore C.	1963	3	0	Deceased
Frick, Stephen N.	1996	16	2	Management
Fullerton, Charles G.	1969	7	2	Former
Garan, Ronald J., Jr.	2000	18	2	Management
Gardner, Dale A.	1978	8	2	Former
Gardner, Guy S.	1980	9	2	Former
Garriott, Owen K.	1965	4	2	Former
Gemar, Charles D.	1985	11	3	Former
Gernhardt, Michael L.	1992	14	4	Management
Gibson, Edward G.	1965	4	1	Former
Gibson, Robert L.	1978	8	5	Former
Givens, Edward G., Jr.	1966	5	0	Deceased
Glenn, John H., Jr.	1959	1	2	Former
Godwin, Linda M.	1985	11	4	Former
Good, Michael T.	2000	18	2	Management
Gordon, Richard F., Jr.	1963	3	2	Former
Gorie, Dominic L.	1995	15	4	Former
Grabe, Ronald J.	1980	9	4	Former
Graveline, Duane E.	1965	4	0	Former
Gregory, Frederick D.	1978	8	3	Former

Astronaut	Entry	Group #	# of	Status
Gregory, William G.	1990	13	1	Former
Griggs, S. David	1978	8	1	Deceased
Grissom, Virgil I.	1959	1	2	Deceased
Grunsfeld, John M.	1992	14	5	Management
Gutierrez, Sidney M.	1984	10	2	Former
Haise, Fred W., Jr.	1966	5	1	Former
Halsell, James D., Jr.	1990	13	5	Former
Ham, Kenneth T.	1998	17	2	Former
Hammond, L. Blaine, Jr.	1984	10	2	Former
Harbaugh, Gregory J.	1987	12	4	Former
Harris, Bernard A., Jr.	1990	13	2	Former
Hart, Terry J.	1978	8	1	Former
Hartsfield, Henry W., Jr.	1969	7	3	Former
Hauck, Frederick H.	1978	8	3	Former
Hawley, Steven A.	1978	8	5	Former
Helms, Susan J.	1990	13	5	Former
Henize, Karl G.	1967	6	1	Deceased
Henricks, Terence T.	1985	11	4	Former
Hernandez, Jose M.	2004	19	1	Former
Herrington, John B.	1996	16	1	Former
Hieb, Richard J.	1985	11	3	Former
Higginbotham, Joan E.	1996	16	1	Former
Hilmers, David C.	1980	9	4	Former
Hire, Kathryn P.	1995	15	2	Management
Hobaugh, Charles O.	1996	16	3	Former
Hoffman, Jeffrey A.	1978	8	5	Former
Holmquest, Donald L.	1967	6	0	Former
Hopkins, Michael S.	2009	20	0	Active
Horowitz, Scott J.	1992	14	4	Former
Hurley, Douglas G.	2000	18	2	Active
Husband, Rick D.	1995	15	2	Deceased
Irwin, James B.	1966	5	1	Deceased
Ivins, Marsha S.	1984	10	5	Former
Jemison, Mae C.	1987	12	1	Former
Jernigan, Tamara E.	1985	11	5	Former
Jett, Brent W.	1992	14	4	Former
Johnson, Gregory C.	1998	17	1	Management
Johnson, Gregory H.	1998	17	2	Active
Jones, Thomas D.	1990	13	4	Former
Kavandi, Janet L.	1995	15	3	Management
Kelly, James M.	1996	16	2	Management
Kelly, Mark E.	1996	16	4	Former
Kelly, Scott J.	1996	16	3	Active
Kerwin, Joseph P.	1965	4	1	Former

Astronaut	Entry	Group #	# of	Status
Kilrain (Still), Susan L.	1995	15	2	Former
Kimbrough, Robert Shane	2004	19	1	Active
Kopra, Timothy L.	2000	18	1	Active
Kregel, Kevin R.	1992	14	4	Former
Lawrence, Wendy B.	1992	14	4	Former
Lee, Mark C.	1984	10	4	Former
Leestma, David C.	1980	9	3	Management
Lenoir, William B.	1967	6	1	Deceased
Lind, Don L.	1966	5	1	Deceased
Lindgren, Kjell N.	2009	20	0	Active
Lindsey, Steven W.	1995	15	5	Former
Linenger, Jerry M.	1992	14	2	Former
Linnehan, Richard M.	1992	14	4	Management
Llewellyn, John A.	1967	6	0	Former
Lockhart, Paul S.	1996	16	2	Former
Lopez-Alegria, Michael E.	1992	14	3	Former
Loria, Christopher J.	1996	16	0	Former
Lounge, J. Mike	1980	9	3	Deceased
Lousma, Jack R.	1966	5	2	Former
Love, Stanley G.	1998	17	1	Management
Lovell, James A., Jr.	1962	2	4	Former
Low, G. David	1984	10	3	Deceased
Lu, Edward T.	1995	15	3	Former
Lucid, Shannon W.	1978	8	5	Former
Magnus, Sandra H.	1996	16	3	Former
Marshburn, Thomas H.	2004	19	2	Active
Massimino, Michael J.	1996	16	2	Management
Mastracchio, Richard A.	1996	16	3	Active
Mattingly, Thomas K., II	1966	5	3	Former
McArthur, K. Megan	2000	18	1	Active
McArthur, William S., Jr.	1990	3	4	Management
McBride, Jon A.	1978	8	1	Former
McCandless, Bruce, II	1966	5	2	Former
McCool, William C.	1996	16	1	Deceased
McCulley, Michael J.	1984	10	1	Former
McDivitt, James A.	1984	2	2	Former
McMonagle, Donald R.	1987	12	3	Former
McNair, Ronald E.	1978	8	1	Deceased
Meade, Carl J.	1985	11	3	Former
Melnick, Bruce E.	1987	12	2	Former
Melroy, Pamela A.	1995	15	3	Former
Melvin, Leland D.	1998	17	2	Management
Metcalf-Lindenberger,	2004	19	1	Active
Michel, F. Curtis	1965	4	0	Former

Astronaut	Entry	Group #	# of	Status
Mitchell, Edgar D.	1966	5	1	Former
Morgan, Barbara R.	1998	17	1	Former
Morin, Lee M.	1996	16	1	Management
Mullane, Richard M.	1978	8	3	Former
Musgrave, Story	1967	6	6	Former
Nagel, Steven R.	1978	8	4	Former
Nelson, George D.	1978	8	3	Former
Newman, James H.	1990	13	4	Former
Noriega, Carlos I.	1995	15	2	Former
Nowak, Lisa M.	1996	16	1	Former
Nyberg, Karen L.	2000	18	1	Active
O'Connor, Bryan D.	1980	9	2	Former
O'Leary, Brian T.	1967	6	0	Deceased
Ochoa, Ellen	1990	13	4	Management
Oefelein, William A.	1998	17	1	Former
Olivas, John D.	1998	17	2	Former
Onizuka, Ellison S.	1978	8	1	Former
Oswald, Stephen S.	1985	11	3	Former
Overmyer, Robert F.	1969	7	2	Deceased
Parazynski, Scott E.	1992	14	5	Former
Parker, Robert A.	1967	6	2	Former
Patrick, Niclolas J. M.	1998	17	2	Former
Peterson, Donald H.	1969	7	1	Former
Pettit, Donald R.	1996	16	3	Active
Phillips, John L.	1996	16	3	Former
Pogue, William R.	1966	5	1	Former
Poindexter, Alan G.	1998	17	2	Deceased
Polansky, Mark L.	1996	16	3	Former
Precourt, Charles J.	1990	13	4	Former
Readdy, William F.	1987	12	3	Former
Reightler, Kenneth S., Jr.	1987	12	2	Former
Reilly, James F., II	1995	15	3	Former
Reisman, Garrett E.	1998	17	2	Former
Resnik, Judith A.	1978	8	1	Deceased
Richards, Paul W.	1996	16	1	Former
Richards, Richard N.	1980	9	4	Deceased
Ride, Sally K.	1978	8	2	Deceased
Robertson, Patricia Hilliard	1998	17	0	Deceased
Robinson, Stephen K.	1995	15	4	Former
Rominger, Kent V.	1992	14	5	Former
Roosa, Stuart A.	1966	5	1	Deceased
Ross, Jerry L.	1980	9	7	Former
Rubins, Kathleen (Kate)	2009	20	0	Active
Runco, Mario, Jr.	1987	12	3	Management

Astronaut	Entry	Group #	# of	Status
Satcher, Robert L., Jr.	2004	19	1	Former
Schirra, Walter M., Jr.	1959	1	3	Deceased
Schmitt, Harrison H.	1965	4	1	Former
Schweickart, Russell L.	1963	3	1	Former
Scobee, Francis R.	1978	8	1	Deceased
Scott, David R.	1963	3	3	Former
Scott, Winston E.	1992	14	2	Former
Searfoss, Richard A.	1990	13	3	Former
Seddon, Margaret Rhea	1978	8	3	Former
See, Elliot M., Jr.	1962	2	0	Deceased
Sega, Ronald M.	1990	13	2	Former
Sellers, Piers J.	1996	16	3	Management
Shaw, Brewster H., Jr.	1978	8	3	Former
Shepard, Alan B., Jr.	1959	1	2	Deceased
Shepherd, William M.	1984	10	4	Former
Shriver, Loren J.	1978	8	3	Former
Slayton, Donald K.	1959	1	1	Deceased
Smith, Michael J.	1980	9	0	Deceased
Smith, Steven L.	1992	14	4	Management
Spring, Sherwood C.	1980	9	1	Former
Springer, Robert C.	1980	9	2	Former
Stafford, Thomas P.	1962	2	4	Former
Stefanyshyn-Piper,	1996	16	2	Former
Stewart, Robert L.	1978	8	2	Former
Stott, Nicole P.	2000	18	2	Active
Sturckow, Frederick W.	1995	15	4	Former
Sullivan, Kathryn D.	1978	8	3	Former
Swanson, Steven R.	1998	17	2	Active
Swigert, John L., Jr.	1966	5	1	Deceased
Tani, Daniel M.	1996	16	2	Former
Tanner, Joseph R.	1992	14	4	Former
Thagard, Norman E.	1978	8	5	Former
Thomas, Andrew S. W.	1992	14	4	Management
Thomas, Donald A.	1990	13	4	Former
Thorne, Stephen D.	1985	11	0	Deceased
Thornton, Kathryn C.	1984	10	4	Former
Thornton, William E.	1967	6	2	Former
Thuot, Pierre J.	1985	11	3	Former
Tingle, Scott D.	2009	20	0	Active
Truly, Richard H.	1969	7	2	Former
van Hoften, James D.	1978	8	2	Former
Vande Hei, Mark T.	2009	20	0	Active
Veach, Charles Lacy	1984	10	2	Deceased
Virts, Terry W., Jr.	2000	18	1	Active

Astronaut	Entry	Group #	# of	Status
Voss, James S.	1987	12	5	Former
Voss, Janice E.	1990	13	5	Deceased
Walheim, Rex J.	1996	16	3	Active
Walker, David M.	1978	8	4	Deceased
Walker, Shannon	2004	19	1	Active
Walz, Carl E.	1990	13	4	Former
Weber, Mary E.	1992	14	2	Former
Weitz, Paul J.	1966	5	2	Former
Wetherbee, James D.	1984	10	6	Former
Wheelock, Douglas H.	1998	17	2	Active
White, Edward H., II	1962	2	1	Deceased
Whitson, Peggy A.	1996	16	2	Active
Wilcutt, Terrence W.	1990	13	4	Management
Williams, Clifton C., Jr.	1963	3	0	Deceased
Williams, Donald E.	1978	8	2	Former
Williams, Jeffrey N.	1996	16	3	Active
Williams, Sunita L.	1998	17	2	Active
Wilmore, Barry E.	2000	18	1	Active
Wilson, Stephanie D.	1996	16	3	Active
Wiseman, G. Reid	2009	20	0	Active
Wisoff, Peter J. K.	1990	13	4	Former
Wolf, David A.	1990	13	3	Former
Woodward, Neil W., III	1998	17	0	Former
Worden, Alfred M.	1966	5	1	Former
Young, John W.	1962	2	6	Former
Zamka, George D.	1998	17	2	Former

2.0 LIST OF INTERNATIONAL ASTRONAUTS CURRENTLY IN THE U.S. PROGRAM

International astronauts are those individuals from international space agencies who have trained or served with NASA Astronauts. Former astronauts are those who are no longer employed by their agency.

2.1 ACTIVE AND MANAGEMENT INTERNATIONAL ASTRONAUTS

Astronaut	Status
Clervoy, Jean-François (ESA)	Management
Cristoforetti, Samantha (ESA)	Active
De Winne, Frank (ESA)	Management
Duque, Pedro (ESA)	Management
Ewald, Reinhold (ESA)	Management
Eyharts, Léopold (ESA)	Active
Fuglesang, Christer (ESA)	Management
Furukawa, Satoshi (JAXA)	Active
Gerst, Alexander (ESA)	Active
Hadfield, Chris A. (CSA)	Active
Haigneré, Claudie (ESA)	Management
Hansen, Jeremy (CSA)	Active
Hoshide, Akihiko (JAXA)	Active
Kanai, Norishige (JAXA)	Active
Kuipers, André (ESA)	Active
MacLean, Steven G. (CSA)	Management
Mogensen, Andreas (ESA)	Active
Mohri, Mamoru (JAXA)	Management
Mukai, Chiaki (JAXA)	Management
Nespoli, Paolo (ESA)	Active
Noguchi, Soichi (JAXA)	Active
Onishi, Takuya (JAXA)	Active
Parmitano, Luca (ESA)	Active
Payette, Julie (CSA)	Management
Peake, Timothy (ESA)	Active
Pesquet, Thomas (ESA)	Active
Reiter, Thomas (ESA)	Management
Saint-Jacques, David (CSA)	Active
Schlegel, Hans (ESA)	Active
Thiele, Gerhard (ESA)	Management
Vittori, Roberto (ESA)	Management
Wakata, Koichi (JAXA)	Active
Yui, Kimiya (JAXA)	Active

2.2 FORMER INTERNATIONAL ASTRONAUTS

Astronaut	Status
Al-Saud, Sultan Salman Abdulaziz	* Former
Baudry, Patrick	* Former
Bondar, Roberta Lynn	* Former
Cheli, Maurizio (ESA)	Former
Chrétien, Jean-Loup	Former
Doi, Takao (JAXA)	Former
Favier, Jean-Jacques	* Former
Frimout, Dirk	* Former
Furrer, Reinhard	* Deceased
Garneau, Marc (CSA)	Former
Guidoni, Umberto (ESA)	Former
Haigneré, Jean-Pierre (ESA)	Former
Kadenyuk, Leonid K.	* Former
Malerba, Franco	* Former
Merbold, Ulf	* Former
Messerschmid, Ernst	* Former
Neri Vela, Rodolfo	* Former
Nicollier, Claude (ESA)	Former
Ockels, Wubbo J.	* Former
Perrin, Philippe (CNES)	Former
Pontes, Marcos (Brazil)	Former
Ramon, Ilan	* Deceased
Thirsk, Robert B. (CSA)	Former
Tognini, Michel (ESA)	Former
Tryggvason, Bjarni V. (CSA)	Former
Walter, Ulrich	* Former
Williams, David R. (CSA)	Former
Yamazaki, Naoko (JAXA)	Former

* A special category of astronauts typically titled payload specialist refers to individuals selected and trained by commercial or research organizations for flights of a specific payload on a space flight mission.

3.0 LIST OF COSMONAUTS WHO HAVE TRAINED IN THE U.S. PROGRAM

Cosmonaut	# of flights	Notes
ARTEMIEV, Oleg Germanovich	0	assigned to Exp. 39
BORISENKO, Andrey Ivanovich	1	
BUDARIN, Nikolai Mikhailovich	3	
DEZHUROV, Vladimir Nikolaevich	2	
GIDZENKO, Yuri Pavlovich	3	
IVANISHIN, Anatoly Alekseyevich	1	
KALERI, Alexander Yurievich	5	
KONDAKOVA, Elena V.	2	
KONDRATYEV, Dmitry Yurievich	1	
KONONENKO, Oleg Dmitievich	2	
KORNIENKO, Mikhail Borisovich	1	assigned to Exp. 43
KORZUN, Valery Grigorievich	2	
KOTOV, Oleg Valerievich	2	assigned to Exp. 37
KOZEEV, Konstantin Mirovich	1	
KRIKALEV, Sergei Konstantinovich	6	
LONCHAKOV, Yuri Valentinovich	3	assigned to Exp. 43
MALENCHENKO, Yuri Ivanovich	5	
MISURKIN, Aleksandr Aleksandrovich	0	assigned to Exp. 35
MORUKOV, Boris V.	1	
NOVITSKIY, Oleg Viktorovich	1	
ONUFRIYENKO, Yuriy Ivanovich	2	
PADALKA, Gennady Ivanovich	4	
POLESCHUK, Alexander Fedorovich	1	
REVIN, Sergei Nikolayevich	1	
RYAZANSKY, Sergei Nikolaevich	0	assigned to Exp. 37
ROMANENKO, Roman Yurievich	2	
RYUMIN, Valery Victorovitch	4	
SAMOKUTYAEV, Alexander	1	assigned to Exp. 41
SEROVA, Elena Olegovna	0	assigned to Exp. 41
SHARIPOV, Salizhan Shakirovich	2	
SHKAPLEROV, Anton Nikolaevich	1	
SKRIPCHKA, Oleg Ivanovitch	1	
SKVORTSOV, Alexander Alexandrovich	1	assigned to Exp. 39
SOLOVYEV, Anatoly Yakovlevich	5	
STREKALOV, Gennady Mikhailovich	5	
SURAEV, Maxim Victorovich	1	assigned to Exp. 40
TARELKIN, Evgeny Igorevich	1	
TITOV, Vladimir Georgievich	4	
TOKAREV, Valery Ivanovich	2	
TRESCHEV, Sergei Yevgenyevich	1	

Cosmonaut	# of flights	Notes
TYURIN, Mikhail	2	
USACHEV, Yury Vladimirovich	4	assigned to Exp. 38
VINOGRADOV, Pavel Vladimirovich	2	assigned to Exp. 35
VOLKOV, Sergey Alexandrovich	2	
YURCHIKHIN, Fyodor Nikolayevich	3	assigned to Exp. 36
ZALETIN, Sergei	2	

4.0 BIOGRAPHICAL SKETCHES

4.1 CURRENT U.S. ASTRONAUTS

ACABA, Joseph M., Civilian

Educator Astronaut
 Born May 17, 1967 in Inglewood, California
 Bachelor of Science in geology from the University of California-Santa Barbara
 Master of Science in geology from University of Arizona
 Flew STS-119 on Discovery in 2009
 Flew Expedition 31/32 on Soyuz in 2012
 2 EVAs with total time of 12 hours 57 minutes
 Total time in space: 137days 19 hours 22 minutes

ANTONELLI, Dominic, Commander, U.S. Navy

Born Detroit, Michigan
 Bachelor of Science in aeronautics & astronautics from MIT
 Master of Science in aeronautics & astronautics from University of Washington
 Flew STS-119 on Discovery in 2009
 Flew STS-132 on Atlantis in 2010
 Total time in space: 24 days 3 hours 58 minutes

ARNOLD, Richard R., II

Educator Astronaut
 Born November 26, 1963 in Cheverly, Maryland
 Bachelor of Science in accounting from Frostburg State University
 Master of Science in marine, estuarine and environmental science from the University of Maryland
 Flew STS-119 on Discovery in 2009
 2 EVAs with total time of 12 hours 34 minutes
 Total time in space: 12 days 19 hours 30 minutes

AUNON, Serena M., (M.D.) Civilian

Born April 9, 1976 in Indianapolis, Indiana; Hometown: Fort Collins, Colorado.
 Bachelor of Science in electrical engineering from George Washington University
 Doctor of Medicine from the University of Texas – Health Science Center in Houston
 Board Certified in Internal and Aerospace Medicine
 Time in Space: 0 (un-flown)

BARRATT, Michael R., (M.D. & M.S.) Civilian

Born April 16, 1959 in Vancouver, Washington; Hometown: Camas, Washington.
 Bachelor of Science in zoology from the University of Washington
 Doctor of Medicine from Northwestern University
 Master of Science in aerospace medicine from Wright State University
 Board Certified in Internal and Aerospace Medicine
 Flew Expedition 19/20 on Soyuz in 2009
 Flew STS-133 on Discovery in 2011
 1 EVA with total time 4 hours 54 minutes
 Total time in space: 211 days 11 hours 46 minutes

BEHNKEN, Robert L., (Ph.D.) Colonel, U.S. Air Force

Born in Creve Coeur, Missouri; Hometown: St. Ann, Missouri.

Bachelor of Science in physics & mechanical engineering from Washington University

Master of Science and Doctor of Philosophy in mechanical engineering from California Institute of Technology

Flew STS-123 on Endeavour in 2008

Flew STS-130 on Endeavour in 2010

6 EVAs with total time of 37 hours 33 minutes

Total time in space: 29 days 12 hours 17 minutes

BOE, Eric A., Colonel, U.S. Air Force

Born October 1, 1964 in Miami, Florida

Bachelor of Science in aeronautical engineering from the U.S. Air Force Academy

Master of Science in electrical engineering from the Georgia Institute of Technology

Flew STS-126 on Endeavour in 2008

Flew STS-133 in Discovery in 2011

Total time in space: 28 days 15 hours 34 minutes

BOWEN, Stephen G., Captain, U.S. Navy

Born February 13, 196, in Cohasset, Massachusetts

Bachelor of Science in electrical engineering from the U.S. Naval Academy

Master of Science in Ocean Engineering from MIT

Flew STS-126 on Endeavour in 2008

Flew STS-132 on Atlantis in 2010

Flew STS-133 on Discovery in 2011

7 EVAs with total time of 47 hours 18 minutes

Total time in space: 40 days 10 hours 5 minutes

BRESNIK, Randolph J., Colonel, U.S. Marine Corps

Born September 11, 1967 in Fort Knox, Kentucky

Bachelor of Arts in mathematics from The Citadel

Master of Science in aviation systems from the University of Tennessee-Knoxville

Graduate of Air War College

Flew STS-129 on Atlantis in 2009

2 EVAs with total time of 11 hours 50 minutes

Total time on space: 10 days 19 hours 16 minutes

BURBANK, Daniel C., Captain, U.S. Coast Guard (Retired)

Born July 27, 1961 in Manchester, Connecticut; Hometown: Yarmouthport, Mass.

Bachelor of Science in electrical engineering from the U.S. Coast Guard Academy

Master of Science in aeronautical science from Embry-Riddle Aeronautical University

Flew STS-106 on Atlantis in 2000

Flew STS-115 on Atlantis in 2006

Flew Expedition 29/30 on Soyuz in 2012

1 EVA with total time of 7 hours 11 minutes

Total time in space: 188 days hours 49 minutes

CALDWELL (Dyson), Tracy E., (Ph.D.) Civilian

Born August 14, 1969 in Arcadia, California

Bachelor of Science in chemistry from California State University-Fullerton

Doctor of Philosophy in physical chemistry from the University of California-Davis

Flew STS-118 on Endeavour in 2007
Flew Expedition 23/24 on Soyuz in 2010
3 EVAs with total time of 22 hours 49 minutes
Total time in space: 188 days 19 hours 15 minutes

CASSIDY, Christopher J., Commander, U.S. Navy
Born January 4, 1970 in Salem, Massachusetts; Hometown: York, Maine.
Bachelor of Science in mathematics from U.S. Naval Academy
Master of Science in Ocean Engineering from MIT
Flew STS-127 on Endeavour in 2009
3 EVAs with total time on 18 hours 5 minutes
Total time in space: 15 days 16 hours 45 minutes
(ASSIGNED to Expedition 35)

CHAMITOFF, Gregory E., (Ph.D.) Civilian
Born August 6, 1962 in Montreal, Canada; Hometown: San Jose, California.
Bachelor of Science in electrical engineering from California Polytechnic State University
Master of Science in aeronautical engineering from California Institute of Technology
Doctor of Philosophy in aeronautics and astronautics from MIT
Master of Science in planetary geology from University of Houston-Clear Lake
Flew Expedition 17/18: STS-124 on Discovery(up) / STS-126 Endeavour(down) in 2008
Flew STS-134 on Endeavour in 2011
2 EVAs with total time on 13 hours 43 minutes
Total time in space: 198 days 18 hours 2 minutes

COLEMAN, Catherine G. "Cady", (Ph.D.) Colonel, U.S. Air Force (Retired)
Born December 14, 1960 in Charleston, South Carolina
Bachelor of Science in chemistry from MIT
Doctor of Philosophy in polymer science & engineering from University of Massachusetts
Flew STS-73 on Columbia in 1995
Flew STS-93 on Columbia in 1999
Flew Expedition 26/27 on Soyuz in 2011
Total time in space: 180 days 4 hours

DREW, B. Alvin, Jr., Colonel, U.S. Air Force (Retired)
Born November 5, 1962 in Washington, D.C.
Bachelor of Science in physics & astronautical engineering from U.S. Air Force Academy
Master of Aerospace Science from Embry-Riddle Aeronautical University
Master of Strategic Studies in Political Science from U.S. Air Force Academy
Flew STS-118 on Endeavour in 2007
Flew STS-133 on Discovery in 2011
2 EVAs with total time of 12 hours 48 minutes
Total time in space: 25 days 13 hours

EPPS, Jeanette J., (Ph.D.) Civilian
Born in Syracuse, New York
Bachelor of Science in physics from LeMoyne College
Master of Science and Doctor of Philosophy in aerospace engineering from University of Maryland
Time in space 0 (un-flown)

FEUSTEL, Andrew J., (Ph.D.) Civilian

Born August 25, 1965 in Lancaster, Pennsylvania; Hometown: Lake Orion, Michigan.
 Bachelor of Science in solid earth sciences from Purdue University
 Master of Science in geophysics from Purdue University
 Doctor of Philosophy in seismology from Queen's University-Canada
 Flew STS-125 on Atlantis in 2009
 Flew STS-134 on Endeavour in 2011
 6 EVAs with total time of 42 hours 18 minutes
 Total time in space: 28 days 15 hours 17 minutes

FINCKE, Edward Michael "Mike", Colonel, U.S. Air Force

Born March 14, 1967 in Pittsburgh, Pennsylvania; Hometown: Emsworth, Pennsylvania.
 Bachelor of Science in aeronautics & astronautics from MIT
 Bachelor of Science in earth, atmospheric & planetary sciences from MIT
 Master of Science in aeronautics & astronautics from Stanford University
 Master of Science in physical sciences (Planetary Geology) from University of Houston-Clear Lake
 Flew Expedition 9 on Soyuz in 2004
 Flew Expedition 18 on Soyuz in 2008
 Flew STS-134 on Endeavour in 2011
 9 EVAs with total time of 48 hours 37 minutes
 Total time in space: 381 days 15 hours 11 minutes

FISCHER, Jack D., Lt. Colonel, U.S. Air Force

Born in 1974 in Louisville, Colorado
 Bachelor of Science in astronautical engineering from U.S. Air Force Academy
 Master of Science in aeronautics & astronautics from MIT
 Time in space: 0 (un-flown)

FOALE, C. Michael, (Ph.D.) Civilian

Born January 6, 1957 in Louth, England; Hometown: Cambridge, England.
 Bachelor of Arts in physics from Cambridge University
 Doctor of Philosophy in laboratory astrophysics from Cambridge University
 Flew STS-45 on Atlantis in 1992
 Flew STS-56 on Discovery in 1993
 Flew STS-63 on Discovery in 1995
 Flew Mir 23 on STS-84 Atlantis(up) and STS-86 Atlantis(down) in 1997
 Flew STS-103 on Discovery in 1999
 Flew Expedition 8 on Soyuz in 2003
 4 EVAs with total time of 22 hours 44 minutes
 Total time in space: 373 days 18 hours 18 minutes

FORD, Kevin A., (Ph.D.) Colonel, U.S. Air Force (Retired)

Born July 7, 1960 in Portland, Indiana; Hometown: Montpelier, Indiana.
 Bachelor of Science in aerospace engineering from University of Notre Dame
 Master of Science in international relations from Troy State University
 Master of Science in aerospace engineering from University of Florida
 Doctor of Philosophy in astronautical engineering from Air Force Institute of Technology
 Graduate of Squadron Officer School the Air Command and Staff College Associate Program and Air War College
 Flew STS-128 on Discovery in 2009

Flew Expedition 33/34 on Soyuz in 2013
Total time in space: 157 days 13 hours 9 minutes
(FLYING Expedition 33)

FOSSUM, Michael E., Civilian, U.S. Air Force Reserves (Retired)
Born December 19, 1957 in Sioux Falls, South Dakota; Hometown: McAllen, Texas.
Bachelor of Science in mechanical engineering from Texas A&M University
Master of Science in systems engineering from the Air Force Institute of Technology
Master of Science in physical science (space science) from the University of Houston-Clear
Lake
Flew STS-121 on Discovery in 2006
Flew STS-124 on Discovery in 2008
Flew Expedition 28/29 on Soyuz in 2011
7 EVAs with total time of 48 hours 32 minutes
Total time in space: 193 days 19 hours 2 minutes

HOPKINS, Michael S., Colonel, U.S. Air Force
Born in Lebanon, Missouri
Bachelor of Science in aerospace engineering from University of Illinois
Master of Science in aerospace engineering from Stanford University
Time in space: 0 (un-flown)
(ASSIGNED to Expedition 37)

HURLEY, Douglas G., Colonel, U.S. Marine Corps
Born October 21, 1966 in Endicott, New York; Hometown: Apalachin, New York.
Bachelor of Science in civil engineering from Tulane University
Flew STS-127 on Endeavour in 2009
Flew STS-135 on Atlantis in 2011
Total time in space: 28 days 11 hours 13 minutes

JOHNSON, Gregory H., Colonel, U.S. Air Force, (Retired)
Born May 12, 1962 in South Ruislip, Middlesex, United Kingdom
Bachelor of Science in aeronautical engineering from U.S. Air Force Academy
Master of Science in flight structures engineering from Columbia University
Master of Business Administration from University of Texas
Flew STS-123 on Endeavour in 2008
Flew STS-134 on Endeavour in 2011
Total time in space: 31 days 11 hours 50 minutes

KELLY, Scott J., Captain, U.S. Navy (Retired)
Born February 21, 1964 in Orange, New Jersey
Bachelor of Science in electrical engineering from State University of New York Maritime
College
Master of Science in aviation systems from University of Tennessee, Knoxville
Flew STS-103 on Discovery in 1999
Flew STS-118 on Endeavour in 2007
Flew Expedition 26 on Soyuz in 2010
Total time in space: 180 days 1 hour 51 minutes
(Assigned to 1-year mission)

KIMBROUGH, Robert Shane, Colonel, U.S. Army

Born June 4, 1967 in Killeen, Texas
 Bachelor of Science in aerospace engineering from the U.S. Military Academy
 Master of Science in operations research from Georgia Institute of Technology
 Flew STS-126 on Endeavour in 2008
 2 EVAs with total time on 12 hours 52 minutes
 Total time in space: 15 days 20 hours 30 minutes

KOPRA, Timothy L., Colonel, U.S. Army (Retired)

Born April 9, 1963 in Austin, Texas
 Bachelor of Science in computer science from the U.S. Military Academy
 Master of Science in aerospace engineering from Georgia Institute of Technology
 Master of Strategic Studies from U. S. Army War College
 Flew Expedition 20: STS-127 Endeavour(up) and STS-128 Discovery(down) in 2009
 1 EVA with total time of 5 hours 2 minutes
 Total time in space: 58 days 2 hours 50 minutes

LINDGREN, Kjell N. (M.D.) Civilian

Born in Taipei, Taiwan
 Bachelor of Science in biology from U.S. Air Force Academy (minor in Mandarin Chinese)
 Master of Science in cardiovascular physiology from Colorado State University
 Doctor of Medicine from University of Colorado
 Master of Science in health informatics at University of Minnesota
 Master of Science in public health at University of Texas Medical Branch-Galveston
 Board certified in emergency medicine and aerospace medicine
 Time in space 0 (un-flown)
(ASSIGNED to Expedition 44)

MARSHBURN, Thomas H., (M.D.) Civilian

Born August 29, 1960 in Statesville, North Carolina
 Bachelor of Science in physics from Davidson College
 Master of Science in engineering physics from the University of Virginia
 Doctor of Medicine from Wake Forest University
 Master of medical science from University of Texas Medical Branch-Galveston
 Flew STS-127 on Endeavour in 2009
 3 EVAs with total time of 18 hours 59 minutes
(Flying Expedition 34)

MASTRACCHIO, Richard A., Civilian

Born February 11, 1960 in Waterbury, Connecticut
 Bachelor of Science in electrical engineering and computer science from University of Connecticut
 Master of Science in electrical engineering from Rensselaer Polytechnic Institute
 Master of Science in physical sciences from University of Houston-Clear Lake
 Flew STS-106 on Atlantis in 2000
 Flew STS-118 on Endeavour in 2007
 Flew STS-131 on Discovery in 2010
 6 EVAs with total time of 38 hours 30 minutes
 Total time in space: 39 days 15 hours 55 minutes
(ASSIGNED to Expedition 38)

McARTHUR, K. Megan, (Ph.D.) Civilian

Born August 30, 1971 in Honolulu, Hawaii; Home state: California.

Bachelor of Science in aerospace engineering from University of California- Los Angeles

Doctor of Philosophy in oceanography from University of California-San Diego

Flew STS-125 on Atlantis in 2009

Total time in space: 12 days 21 hours 37 minutes

METCALF-LINDENBURGER, Dorothy M., Civilian

Educator Astronaut

Born May 2, 1975 in Colorado Springs, Colorado; Hometown: Fort Collins, Colorado.

Bachelor of Arts in geology from Whitman College

Flew STS-131 on Discovery in 2010

Total time in space: 15 days 2 hours 47 minutes

NYBERG, Karen L., (Ph.D.) Civilian

Born October 7, 1969 in Parker's Prairie, Minnesota; Hometown: Vining, Minnesota.

Bachelor of Science in mechanical engineering from University of North Dakota

Master of Science and Doctor of Philosophy in mechanical engineering from University of Texas

Flew STS-124 on Discovery in 2008

Total time in space: 13 days 18 hours 13 minutes

(ASSIGNED to Expedition 36)

PETTIT, Donald R., (Ph.D.) Civilian

Born April 20, 1955 in Silverton, Oregon

Bachelor of Science in chemical engineering from Oregon State University

Doctor in chemical engineering from University of Arizona

Flew Expedition 6 on Soyuz in 2003

Flew STS-126 on Endeavour in 2008

Flew Expedition 30/31 on Soyuz in 2012

2 EVAs for total time of 13 hours 17 minutes

Total time in space: 369 days 16 hours 42 minutes

RUBINS, Kathleen "Kate", (Ph.D.) Civilian

Born in 1978 in Farmington, Connecticut, and raised in Napa, California

Bachelor of Science in molecular biology from University of California-San Diego

Doctor of philosophy in cancer biology from Stanford University Medical School

Time in space: 0 (un-flown)

STOTT, Nicole P., (Ph.D.) Civilian

Born November 19, 1962 in Albany, New York; Hometown: Clearwater, Florida.

Bachelor of Science in aeronautical engineering from Embry-Riddle Aeronautical University

Master of Science in engineering management from University of Central Florida

Flew Expedition 20/21: STS-128 Discovery(up), STS-129 Atlantis(down) in 2009

Flew STS-133 on Discovery in 2011

1 EVA with total time of 6 hours 39 minutes

Total time in space: 103 days 5 hours 49 minutes

SWANSON, Steven R., (Ph.D.) Civilian

Born December 3, 1960 in Syracuse, NY; Hometown: Steamboat Springs, Colorado.
Bachelor of Science in engineering physics from University of Colorado
Master of Applied Science in computer systems from Florida Atlantic University
Doctor of Philosophy in computer science from Texas A&M University
Flew STS-117 on Atlantis in 2007
Flew STS-119 on Discovery in 2009
4 EVAs with total time of 26 hours 22 minutes
Total time in space: 26 days 15 hours 41 minutes
(ASSIGNED to Expedition 39)

TINGLE, Scott D., Commander, U.S. Navy
Born in Attleboro, Massachusetts; Hometown: Randolph, Massachusetts.
Bachelor of Science in mechanical engineering from Southeastern Massachusetts University
Master of Science in mechanical engineering with specialty in fluid mechanics and propulsion from Purdue University
Time in space: 0 (un-flown)

VANDE HEI, Mark T., Colonel, U.S. Army
Born in 1966 in Falls Church, Virginia
Bachelor of Science in physics from Saint John's University, Collegeville, Minnesota
Master of Science in applied physics from Stanford University
Time in space: 0 (un-flown)

VIRTS, Terry, Colonel, U.S. Air Force
Born December 1967 in Baltimore, Maryland; Hometown: Columbia, Maryland.
Bachelor of Science in mathematics & minor in French from U.S. Air Force Academy
Master of Advanced Studies in aeronautics from Embry-Riddle Aeronautical University
Flew STS-130 on Endeavour in 2010
Total time in space: 13 days 18 hours 6 minutes
(ASSIGNED to Expedition 42)

WALHEIM, Rex J., Colonel, U.S. Air Force (Retired)
Born October 10, 1962 in Redwood, California; Hometown: San Carlos, California.
Bachelor of Science in mechanical engineering from University of California-Berkeley
Master of Science in industrial engineering from University of Houston
Flew STS-110 on Atlantis in 2002
Flew STS-122 on Atlantis in 2008
Flew STS-135 on Atlantis in 2011
5 EVAs with total time of 36 hours 23 minutes
Total time in space: 36 days 8 hours 32 minutes

WALKER, Shannon, (Ph.D.) Civilian
Born June 4, 1965 in Houston, Texas
Bachelor of Arts, Master of Science, and Doctor of Philosophy in space physics from Rice University
Flew Expedition 24/25 on Soyuz in 2010
Total time in space: 163 days 7 hours 11 minutes

WHEELOCK, Douglas H., Colonel, U.S. Army

Born May 5, 1960 in Binghamton, New York; Hometown: Windsor, New York.
Bachelor of Science, applied science and engineering from U.S. Military Academy
Master of Science in aerospace engineering from Georgia Institute of Technology
Flew STS-120 on Discovery in 2007
Flew Expedition 24/25 on Soyuz in 2010
6 EVAs with total time of 43 hours 30 minutes
Total time in space: 178 days 9 hours 30 minutes

WHITSON, Peggy A., (Ph.D.) Civilian

Born February 9, 1960 in Mt. Ayr, Iowa; Hometown: Beaconsfield, Iowa.
Bachelor of Science in biology/chemistry from Iowa Wesleyan College
Doctor of philosophy in biochemistry from Rice University
Flew Expedition 5: STS-111 Endeavour (up) & STS-113 Endeavour (down) in 2002
Flew Expedition 16 on Soyuz in 2007
6 EVAs with total time of 39 hours 46 minutes
Total time in space: 376 days 17 hours 22 minutes

WILLIAMS, Jeffrey N., Colonel, U.S. Army (Retired)

Born January 18, 1958 in Superior, Wisconsin; Hometown: Winter, Wisconsin.
Bachelor of Science in applied science/engineering from U.S. Military Academy
Master of Science in aeronautical engineering from U.S. Naval Post Graduate School
Master of Arts in national security and strategic studies from U.S. Naval War College
Flew STS-101 on Atlantis in 2000
Flew Expedition 13 on Soyuz in 2006
Flew Expedition 21/22 on Soyuz in 2009
3 EVAs with total time on 19 hours 9 minutes
Total time in space: 361 days 23 hours 3 minutes

WILLIAMS, Sunita L., Captain, U.S. Navy

Born September 19, 1965 in Euclid, Ohio; Hometown: Needham, Massachusetts.
Bachelor of Science in physical science from U.S. Naval Academy
Master of Science in engineering management from Florida Institute of Technology
Flew Expedition 14/15: STS-116 Discovery(up) & STS-117 Atlantis(down) in 2007
Flew Expedition 32/33 on Soyuz in 2012
7 EVAs with total time of 50 hours 40 minutes
Total time in space: 321 days 17 hours 15minutes

WILMORE, Barry E. "Butch", Captain, U.S. Navy

Born December 29, 1962 in Murfreesboro, Tennessee
Bachelor of Science and Master of Science in electrical engineering from Tennessee
Technological University
Master of Science in aviation systems from University of Tennessee
Flew STS-129 on Atlantis in 2009
Total time in space: 10 days 19 hours 16 minutes
(ASSIGNED to Expedition 41)

WILSON, Stephanie D., Civilian

Born September 27, 1966 in Boston, Massachusetts; Hometown: Pittsfield, Massachusetts.
Bachelor of Science in engineering science from Harvard University
Master of Science in aerospace engineering from University of Texas
Flew STS-121 on Discovery in 2006

Flew STS-120 on Discovery in 2007
Flew STS-131 on Discovery in 2010
Total time in space 42 days 23 hours 46 minutes

WISEMAN, G. Reid, Commander, U.S. Navy

Born in 1975 Hometown: Baltimore, Maryland

Bachelor of Science in computer & systems engineering from Rensselaer Polytechnic
Institute, Troy, New York

Master of Science in systems engineering from Johns Hopkins University

Time in space: 0 (un-flown)

(ASSIGNED to Expedition 40)

4.2 U.S. ASTRONAUTS IN MANAGEMENT POSITIONS

BAKER, Michael A., Captain, U.S. Navy (Retired)

NASA/Johnson

Born October 27, 1953 in Memphis, Tennessee; Hometown: Lemoore, California.

Bachelor of Science in aerospace engineering from University of Texas

Flew STS-43 on Atlantis in 1991

Flew STS-52 on Columbia in 1992

Flew STS-68 on Endeavour in 1994

Flew STS-81 on Atlantis in 1997

Total time in space: 40 days 4 hours 59 minutes

BOLDEN, Charles F., Jr. Major General, U.S. Marine Corps (Retired)

NASA/Headquarters

Born August 19, 1946 in Columbia, South Carolina

Bachelor of Science in electrical science from U.S Naval Academy

Master of Science in systems management from University of Southern California

Flew STS-61-C on Columbia in 1986

Flew STS-31 on Discovery in 1990

Flew STS-45 on Atlantis in 1992

Flew STS-60 on Discovery in 1994

Total time in space: 28 days 8 hours 37 minutes

CABANA, Robert D. Colonel, U.S. Marine Corps (Retired)

NASA/Kennedy

Born January 23, 1949 in Minneapolis, Minnesota

Bachelor of Science in mathematics from U.S. Naval Academy

Flew STS-41 on Discovery in 1990

Flew STS-53 on Discovery in 1992

Flew STS-65 on Columbia in 1994

Flew STS-88 on Endeavour in 1998

Total time in space: 37 days 22 hours 42 minutes

CAGLE, Yvonne D., (M.D.) Colonel, U.S. Air Force

NASA/Ames

Born in West Point, New York; Hometown: Novato, California.

Bachelor of Arts in biochemistry from San Francisco State University

Doctor of Medicine from University of Washington

Certified senior aviation medical examiner from FAA

Total time in space: 0 (unflown)

CAMARDA, Charles J., (Ph.D.) Civilian

NASA/Johnson

Born May 8, 1952 in Queens, New York

Bachelor of Science in aerospace engineering from Polytechnic Institute of Brooklyn

Master of Science in engineering science from George Washington University

Doctor of philosophy in aerospace engineering from Virginia Polytechnic Institute and State University

Flew STS-114 on Discovery in 2005

Total time in space: 13 days 21 hours 32 minutes

CASPER, John H., Colonel, U.S. Air Force (Retired)

NASA/Johnson

Born July 9, 1943 in Greenville, South Carolina; Hometown: Gainesville, Georgia.

Bachelor of Science in engineering science from U.S. Air Force Academy

Master of Science in astronautics from Purdue University

Graduate of Air Force Air War College

Flew STS-36 on Atlantis in 1990

Flew STS-54 on Endeavour in 1993

Flew STS-62 on Columbia in 1994

Flew STS-77 on Endeavour in 1996

Total time in space: 34 days 9 hours 52 minutes

COCKRELL, Kenneth D., U.S. Naval Reserves (Retired)

NASA/Johnson

Born April 9, 1950 in Austin, Texas; Hometown: Rockdale, Texas.

Bachelor of Science in mechanical engineering from University of Texas

Master of Science in aeronautical systems from University of west Florida

Flew STS-56 on Discovery in 1993

Flew STS-69 on Endeavour in 1995

Flew STS-80 on Columbia in 1996

Flew STS-98 on Atlantis in 2001

Flew STS-111 on Endeavour in 2002

Total time in space: 64 days 12 hours 25 minutes

CREAMER, Timothy J., Colonel, U.S. Army (Retired)

NASA/Johnson

Born November 15, 1959 in Ft. Huachuca, Arizona; Hometown: Upper Marlboro, Maryland.

Bachelor of Science in chemistry from Loyola College in Baltimore, Maryland

Master of Science in physics from MIT

Flew Expedition 22/23 on Soyuz in 2010

Total time in space: 163 days 5 hours 32 minutes

CURRIE, Nancy J. (Sherlock), (Ph.D.) Colonel, U.S. Army (Retired)

NASA NESC/Johnson

Born December 29, 1958 in Wilmington, Delaware; Hometown: Troy, Ohio.

Bachelor of Arts in biological science from Ohio State University

Master of Science in safety engineering from University of Southern California

Doctor of Philosophy in industrial engineering from University of Houston

Flew STS-57 on Endeavour in 1993

Flew STS-70 on Discovery in 1995

Flew STS-88 on Endeavour in 1998

Flew STS-109 on Columbia in 2002

Total time in space: 41 days 15 hours 32 minutes

DUTTON, James P., Jr., Colonel, U.S. Air Force

NASA/Johnson

Born November 20, 1968 in Eugene, Oregon

Bachelor of Science in astronautical engineering from U.S. Air Force Academy

Master of Science in aeronautics & astronautics from the University of Washington

Flew STS-131 on Discovery in 2010

Total time in space: 15 days 2 hours 47 minutes

FISHER, Anna L., (M.D.) Civilian

NASA/Johnson

Born August 24, 1949 in New York, New York; Hometown: San Pedro, California.

Bachelor of Science and Master of Science in chemistry from University of California-Los Angeles

Doctor of Medicine from University of California-Los Angeles

Flew STS-51-A on Discovery in 1984

Total time in space: 7 days 23 hours 44 minutes

FOREMAN, Michael J., Captain, U.S. Navy (Retired)

NASA/Johnson

Born March 29, 1957 in Columbus, Ohio; Hometown: Wadsworth, Ohio.

Bachelor of Science in aerospace engineering from U.S. Naval Academy

Master of Science in aeronautical engineering from U.S. Naval Postgraduate School

Flew STS-123 on Endeavour in 2008

Flew STS-129 on Atlantis in 2009

5 EVAs with total time on 32 hours 19 minutes

Total time in space: 26 days 13 hours 27 minutes

FORRESTER, Patrick G., Colonel, U.S. Army (Retired)

NASA/Johnson

Born March 31, 1957 in El Paso, Texas

Bachelor of Science in applied sciences and engineering from U.S. Military Academy

Master of Science in mechanical & aerospace engineering from University of Virginia

Flew STS-105 on Discovery in 2001

Flew STS-117 on Atlantis in 2007

Flew STS-128 on Discovery in 2009

4 EVAs with total time on 25 hours 30 minutes

Total time in space: 39 days 14 hours 18 minutes

FRICK, Stephen N., Captain, U.S. Navy (Retired)

NASA/Johnson

Born September 30, 1964 in Pittsburgh, Pennsylvania; Hometown: Gibsonia, Pennsylvania.

Bachelor of Science in aerospace engineering from U.S. Naval Academy

Master of Science in aeronautical engineering from U.S. Naval Postgraduate School

Flew STS-110 on Atlantis in 2002

Flew STS-122 on Atlantis in 2008

Total time in space: 23 days 14 hours 4 minutes

GARAN, Ronald J., Jr., Colonel, U.S. Air Force (Retired)

NASA/Johnson

Born October 30, 1961 in Yonkers, New York

Bachelor of Science in business economics from State University of New York

Master of Aeronautical Science in aeronautics from Embry-Riddle Aeronautical University

Master of Science in aerospace engineering from University of Florida

Flew STS-124 on Discovery in 2008

Flew Expedition 27/28 on Soyuz in 2011

4 EVAs with total time of 27 hours 3 minutes

Total time in space: 177 days 23 hours 54 minutes

GERNHARDT, Michael L., Civilian

NASA/Johnson

Born May 4, 1956 in Mansfield, Ohio

Bachelor of Science in physics from Vanderbilt University

Master of Science and Doctor of Philosophy in bioengineering from University of Pennsylvania

Flew STS-69 on Endeavour in 1995

Flew STS-83 on Columbia in 1997

Flew STS-94 on Columbia in 1997

Flew STS-104 on Atlantis in 2001

4 EVAs with total time on 23 hours 16 minutes

Total time in space: 43 days 7 hours 1 minute

GOOD, Michael T., Colonel, U.S. Air Force (Retired)

NASA/Johnson

Born October 13, 1962 in Parma, Ohio; Hometown: Broadview Heights, Ohio.

Bachelor of Science and Master of Science in aerospace engineering from University of Notre Dame

Flew STS-125 on Atlantis in 2009

Flew STS-132 on Atlantis in 2010

4 EVAs with total time of 29 hours 53 minutes

Total time in space: 24 days 16 hours 6 minutes

GRUNSFELD, John M., (Ph.D.) Civilian

NASA/Headquarters

Born in Chicago, Illinois

Bachelor of Science in physics from MIT

Master of Science and Doctor of Philosophy in physics from University of Chicago

Flew STS-67 on Endeavour in 1995

Flew STS-81 on Atlantis in 1997

Flew STS-103 on Discovery in 1999

Flew STS-109 on Columbia in 2002

Flew STS-125 on Atlantis in 2009

8 EVAs with total time of 58 hours 30 minutes

Total time in space: 58 days 15 hours 3 minutes

HIRE, Kathryn P. "Kay", Captain, U.S Naval Reserves

NASA/Johnson

Born August 26, 1959 in Mobile, Alabama; Hometown: Merritt Island, Florida.

Bachelor of Science in engineering & management from U.S Naval Academy

Master of Science in space technology from Florida State Institute of Technology

Flew STS-90 on Columbia in 1998

Flew STS-130 on Endeavour in 2010

Total time in space: 29 days 15 hours 56 minutes

JOHNSON, Gregory C., Captain, U.S. Navy (Retired)

NASA/Johnson

Born July 30, 1954 in Seattle, Washington

Bachelor of Science in aerospace engineering from University of Washington

Flew STS-125 on Atlantis in 2009

Total time in space 12 days 21 hours 38 minutes

KAVANDI, Janet L., (Ph.D.) Civilian

NASA/Johnson

Born July 17, 1959 in Springfield, Missouri

Bachelor of Science in chemistry from Missouri Southern State College

Master of Science in chemistry from University of Missouri

Doctor of Philosophy in analytical chemistry from University of Washington

Flew STS-91 on Discovery in 1998

Flew STS-99 on Endeavour in 2000

Flew STS-104 on Atlantis in 2001

Total time in space: 33 days 20 hours 8 minutes

KELLY, James M., Colonel, U.S. Air Force (Retired)

NASA/Johnson

Born May 14, 1964 in Burlington, Iowa

Bachelor of Science in astronautical engineering from U.S. Air Force Academy

Master of Science in aerospace engineering from University of Alabama

Flew STS-102 on Discovery in 2001

Flew STS-114 on Discovery in 2005

Total time in space: 26 days 17 hours 21 minutes

LEESTMA, David C., Captain, U.S. Navy (Retired)

NASA/Johnson

Born May 6, 1949 in Muskegon, Michigan

Bachelor of Science in aeronautical engineering from U.S. Naval Academy

Master of Science in aeronautical engineering from U.S. Naval Postgraduate School

Flew STS-41-G on Challenger in 1984

Flew STS-28 on Columbia in 1989

Flew STS-45 on Atlantis in 1992

1 EVA with total time of 3 hours 29 minutes

Total time in space: 22 days 4 hours 32 minutes

LINNEHAN, Richard M., (BS, D.V.M., MPA) Civilian

NASA/Johnson

Born in Lowell Massachusetts

Bachelor of Science in animal sciences (minor in microbiology) from University of New Hampshire

Doctor of Veterinary Medicine from Ohio State University College of Veterinary Medicine

Master of Public Administration from Kennedy School of Government at Harvard University

Flew STS-78 on Columbia in 1996

Flew STS-90 on Columbia in 1998

Flew STS-109 on Columbia in 2002

Flew STS-123 on Endeavour in 2008

6 EVAs with total time of 43 hours 11 minutes

Total time in space: 59 days 11 hours 59 minutes

LOVE, Stanley G., (Ph.D.) Civilian

NASA/Johnson

Born June 8, 1965 in San Diego, California; Hometown: Eugene, Oregon.

Bachelor of Science in physics from Harvey Mudd College

Master of Science and Doctor of philosophy in astronomy from University of Washington

Flew STS-122 on Atlantis in 2008

2 EVAs with total time of 15 hours 23 minutes
Total time in space: 12 days 18 hours 22 minutes

MASSIMINO, Michael J., Civilian

NASA/Johnson
Born August 19, 1962 in Oceanside, NY; Hometown: Franklin Square, New York.
Bachelor of Science in industrial engineering from Columbia University
Master of Science in technology and policy from MIT
Master of Science in mechanical engineering from MIT
Doctor of Philosophy in mechanical engineering from MIT
Flew STS-109 on Columbia in 2002
Flew STS-125 on Atlantis in 2009
4 EVAs with total time of 30 hours 32 minutes
Total time in space: 23 days 19 hours 48 minutes

McARTHUR, William S. "Bill", Jr., Colonel, U.S. Army (Retired)

NASA/Johnson
Born July 26, 1951 in Laurinburg, North Carolina; Hometown: Wakulla, North Carolina.
Bachelor of Science in applied science & engineering from U.S. Military Academy
Master of Science in aerospace engineering from Georgia Institute of Technology
Flew STS-58 on Columbia in 1993
Flew STS-74 on Atlantis in 1995
Flew STS-92 on Discovery in 2000
Flew Expedition 12 on Soyuz in 2005
4 EVAs with total time on 24 hours 21 minutes
Total time in space: 224 days 22 hours 19 minutes

MELVIN, Leland D., Civilian

NASA/ Headquarters
Born February 15, 1964 in Lynchburg, Virginia
Bachelor of Science in chemistry from University of Richmond
Master of Science in materials science engineering from University of Virginia
Flew STS-122 on Atlantis in 2008
Flew STS-129 on Atlantis in 2009
Total time in space: 23 days 13 hours 38 minutes

MORIN, Lee M., (M.D., Ph.D.) Captain, U.S. Navy

NASA/Johnson
Born September 9, 1952 in Manchester , New Hampshire
Bachelor of Science in mathematical/electrical science from university of New Hampshire
Master of public health from University of Alabama - Birmingham
Master of Science in biochemistry from New York University
Doctor of Medicine from New York University
Doctorate of Philosophy in microbiology from New York University
Flew STS-110 on Atlantis in 2002
2 EVAs with total time on 14 hours 7 minutes
Total time in space: 10 days 19 hours 42 minutes

OCHOA, Ellen, Civilian

NASA/Johnson

Born May 10, 1958 in Los Angeles, California; Hometown: La Mesa, California.

Bachelor of Science in physics from San Diego State University

Master of Science and Doctor of Philosophy in electrical engineering from Stanford University

Flew STS-56 on Discovery in 1993

Flew STS-66 on Atlantis in 1994

Flew STS-96 on Discovery in 1999

Flew STS-110 on Atlantis in 2002

Total time in space: 40 days 19 hours 37 minutes

RICHARDS, Paul W., Civilian

NASA/Goddard

Born May 20, 1964 in Scranton, Pennsylvania; Hometown: Dunmore, Pennsylvania.

Bachelor of Science in mechanical engineering from Drexel University

Master of Science in mechanical engineering from University of Maryland

Flew STS-102 on Discovery in 2001

1 EVA with total time of 6 hours 21 minutes

Total time in space: 12 days 19 hours 49 minutes

RUNCO, Mario, Jr., Lt. Commander, U.S Navy (Retired)

NASA/ Headquarters

Born January 26, 1952 in Bronx, New York

Bachelor of Science in earth & planetary science from City College of New York

Master of Science in atmospheric physics from Rutgers University

Flew STS-44 on Atlantis in 1991

Flew STS-54 on Endeavour in 1993

Flew STS-77 on Endeavour in 1996

1 EVA with total time on 4 hours 28 minutes

Total time in space: 22 days 23 hours 8 minutes

SELLERS, Piers J., (Ph.D.) Civilian

NASA/Goddard

Born April 11, 1955 in Crowborough, Sussex, United Kingdom

Bachelor of Science in ecological science from University of Edinburgh (Scotland)

Doctor of philosophy in biometeorology from Leeds University (United Kingdom)

Flew STS-112 on Atlantis in 2002

Flew STS-121 on Discovery in 2006

Flew STS-132 on Atlantis in 2010

6 EVAs with total time of 41 hours 10 minutes

Total time in space: 34 days 23 hours 4 minutes

SMITH, Steven L., Civilian

NASA/Johnson

Born December 30, 1958 in Phoenix, Arizona; Hometown: San Jose, California.

Bachelor of Science in electrical engineering from Stanford University

Master of Science in electrical engineering from Stanford University

Master in business administration from Stanford University

Flew STS-68 on Endeavour in 1994

Flew STS-82 on Discovery in 1997

Flew STS-103 on Discovery in 1999
Flew STS-110 on Atlantis in 2002
7 EVAs with total time of 49 hours 25 minutes
Total time in space: 40 days 0 hours 16 minutes

THOMAS, Andrew S.W., (Ph.D.) Civilian

NASA/Johnson

Born December 18, 1951 in Adelaide, South Australia

Bachelor of engineering in mechanical engineering from University of Adelaide

Doctor of Philosophy in mechanical engineering from University of Adelaide

Flew STS-77 on Endeavour in 1996

Flew Mir: STS-89 on Endeavour (up) in 1998 and STS-91 on Discovery (down) in 1998

Flew STS-102 on Discovery in 2001

Flew STS-114 on Discovery in 2005

1 EVA with total time of 6 hours 21 minutes

Total time in space: 177 days 9 hours 14 minutes

WILCUTT, Terrence W., Colonel, U.S. Marine Corps

NASA/Johnson

Born October 31, 1949 in Russellville, Kentucky; Hometown: Louisville, Kentucky.

Bachelor of Arts in mathematics from Western Kentucky University

Flew STS-68 on Endeavour in 1994

Flew STS-79 on Atlantis in 1996

Flew STS-89 on Endeavour in 1998

Flew STS-106 on Atlantis in 2000

Total time in space: 42 days 0 hours 5 minutes

4.3 FORMER U.S. ASTRONAUTS

ACTON, Loren W., Civilian

Payload Specialist
 Born March 7, 1936 in Lewiston, Montana
 Bachelor of Science from Montana State University
 Doctorate from the University of Colorado
 Flew STS 51F on Challenger in 1985
 Total time in space: 7 days 22 hours 45 minutes

ADAMSON, James C., Colonel, U. S. Army (Retired)

Born March 3, 1946 in Warsaw, New York
 Bachelor of Science in engineering from the U.S. Military Academy
 Master of Science in aerospace engineering from Princeton University
 Graduate of Navy Test Pilot School
 Flew STS-28 on Columbia in 1989
 Flew STS-43 on Atlantis in 1991
 Total time in space: 13 days 22 hours 21 minutes

AKERS, Thomas D., Colonel, U.S. Air Force (Retired)

Born May 20, 1951 in St. Louis, Missouri; Hometown: Eminence, Missouri.
 Bachelor of Science and Master of Science in applied mathematics from the University of Missouri-Rolla
 Flew STS-41 on Discovery in 1990
 Flew STS-49 on Endeavour in 1992
 Flew STS-61 on Endeavour in 1993
 Flew STS-79 on Atlantis in 1996
 4 EVAs with total time on 29 hours 40 minutes
 Total time in space: 33 days 22 hours 44 minutes

ALDRIN, Buzz, Colonel, U.S. Air Force (Retired)

Born January 20, 1930 in Montclair, New Jersey
 Bachelor of Science in mechanical engineering from the U.S. Military Academy
 Doctor of Science in astronautics from MIT
 Flew Gemini 12 in 1966
 Flew Apollo 11 in 1969
 2 EVAs with total time of 7 hours 52 minutes
 Total time in space: 12 Days 1 hour 53 minutes

ALLEN, Andrew M., Lt. Colonel, U.S. Marine Corps (Retired)

Born August 4, 1955 in Philadelphia, Pennsylvania
 Bachelor of Science in mechanical engineering from Villanova University
 Master in Business Administration from the University of Florida
 Flew STS-46 on Atlantis in 1992
 Flew STS-62 on Columbia in 1994
 Flew STS-75 on Columbia in 1996
 Total time in space: 37 days 18 hours 13 minutes

ALLEN, Joseph P., Civilian

Born June 27, 1937 in Crawfordsville, Indiana
 Bachelor of Arts in mathematics and physics from DePauw University

Master of Science and Doctor of Philosophy in physics from Yale University
Flew STS-5 on Columbia in 1982
Flew STS-51-A on Discovery in 1984
2 EVAs with total time of 12 hours 14 minutes
Total time in space: 13 days 1 hour 59 minutes

ALTMAN, Scott D., Captain, U.S. Navy (Retired)

Born August 15, 1959 in Lincoln, Illinois
Bachelor of Science in aeronautical & astronautical engineering from University of Illinois
Master of Science in aeronautical engineering from the U.S. Naval Postgraduate School
Flew STS-90 on Columbia in 1998
Flew STS-106 on Atlantis in 2000
Flew STS-109 on Columbia in 2002
Flew STS-125 on Atlantis in 2009
Total time in space: 51 days 12 hours 51 minutes

ANDERS, William A., Major General, U.S. Air Force Reserve (Retired)

Born October 17, 1933 in Hong Kong
Bachelor of Science in nuclear engineering from the U. S. Naval Academy
Master of Science in nuclear engineering from the Air Force Institute of Technology
Flew Apollo 8 in 1968
Total time in space: 6 days 3 hours 0 minutes

ANDERSON, Clayton C., Civilian

Born February 23, 1959 in Omaha, Nebraska; Hometown: Ashland, Nebraska.
Bachelor of Science in physics from Hastings College
Master of Science in aerospace engineering from Iowa State University
Flew Expedition 15 in 2007 - STS-117 on Atlantis (up) - STS-120 on Discovery (down)
Flew STS-131 on Discovery in 2010
6 EVAs with total time of 38 hours 28 minutes
Total time in space: 166 days 21 hours 10 minutes

APT, Jerome, Civilian

Born April 18, 1949 in Springfield, Massachusetts; Hometown: Pittsburgh, Pennsylvania.
Bachelor of Arts in physics from Harvard College
Doctor of Philosophy in physics from MIT
Flew STS-37 on Atlantis in 1991
Flew STS-47 on Endeavour in 1992
Flew STS-59 on Endeavour in 1994
Flew STS-79 on Atlantis in 1996
2 EVAs with total time of 10 hours 49 minutes
Total time in space: 35 days 7 hours 10 minutes

ARCHAMBAULT, Lee J., Colonel, U.S. Air Force

Born August 25, 1960 in Oak Park, Illinois; Hometown: Bellwood, Illinois.
Bachelor of Science and Master of Science in aeronautical/astronautical engineering from
University of Illinois-Urbana
Flew 117 on Atlantis in 2007
Flew 119 on Discovery in 2009
Total time in space: 26 days 15 hours 41 minutes

ASHBY, Jeffrey S., Captain, U.S. Navy (Retired)

Born 1954 in Dallas, Texas; Hometown: Evergreen, Colorado.
 Bachelor of Science in mechanical engineering from the University of Idaho
 Master of Science in aviation systems from the University of Tennessee
 Graduate of Naval Test Pilot School
 Graduate of Naval Fighter Weapons School (Top Gun)
 Flew STS-93 on Columbia in 1999
 Flew STS-100 on Endeavour in 2001
 Flew STS-112 on Atlantis in 2002
 Total time in space: 27 days 07 hours 42 minutes

BAGIAN, James P., Civilian

Born February 22, 1952 in Philadelphia, Pennsylvania
 Bachelor of Science in mechanical engineering from Drexel University
 Doctor of Medicine from Thomas Jefferson University
 Flew STS-29 on Discovery in 1989
 Flew STS-40 on Columbia in 1991
 Total time in space: 14 days 1 hour 53 minutes

BAKER, Ellen S. (M.D.), Civilian

Born April 27, 1953 in Fayetteville, North Carolina; Hometown: New York, New York.
 Bachelor of Arts in geology from the State University of New York – Buffalo
 Doctor of medicine from Cornell University
 Master degree in public health from the University of Texas
 Flew STS-34 on Atlantis in 1989
 Flew STS-50 on Columbia in 1992
 Flew STS-71 on Atlantis in 1995
 Total time in space: 28 days 14 hours 31 minutes

BARRY, Daniel T. (M.D.), Civilian

Born December 30, 1953 in Norwalk, Connecticut; Hometown: South Hadley, Mass.
 Bachelor of Science in electrical engineering from Cornell University
 Master of engineering from Princeton University
 Master of Arts and Doctor of Philosophy in electrical engineering/computer science from
 Princeton University
 Doctor of medicine from University of Miami
 Flew STS-72 on Endeavour in 1996
 Flew STS-96 on Discovery in 1999
 Flew STS-105 on Discovery in 2001
 4 EVAs with total time of 25 hours 49 minutes
 Total time in space: 30 days 12 hours 53 minutes

BARTOE, John-David F., Civilian

Payload Specialist
 Born November 17, 1944 in Abington, Pennsylvania
 Bachelor of Science in physics from Lehigh University
 Master of Science and Doctor of Philosophy of physics from Georgetown University
 Flew on STS-51F on Challenger in 1985
 Total time in space: 7 days 22 hours 45 minutes

BEAN, Alan L., Captain, U.S. Navy (Retired)

Born March 15, 1932 in Wheeler, Texas
 Bachelor of Science in aeronautical engineering from the University of Texas
 Flew on Apollo 12 in 1969
 Flew on Skylab 3 in 1973
 3 EVAs with total time of 10 hours 26 minutes
 Total time in space: 69 days 15 hours 45 minutes

BLAHA, John E., Colonel, U. S. Air Force (Retired)

Born August 26, 1942 in San Antonio, Texas
 Bachelor of Science in engineering science from the U.S. Air Force Academy
 Master of Science in aeronautical engineering from Purdue University
 Flew STS-29 on Discovery in 1989
 Flew STS-33 on Discovery in 1989
 Flew STS-43 on Atlantis in 1991
 Flew STS-58 on Columbia in 1993
 Flew Mir: STS-79 on Atlantis (up) in 1996 and STS-81 on Atlantis (down) in 1997
 Total time in space: 160 days 21 hours 17 minutes

BLOOMFIELD, Michael J., Colonel, U.S. Air Force (Retired)

Born March 16, 1959 in Flint, Michigan; Hometown: Lake Fenton, Michigan.
 Bachelor of Science in engineering mechanics from the U.S Air Force Academy
 Master in engineering management from Old Dominion University
 Flew STS-86 on Atlantis in 1997
 Flew STS-97 on Endeavour in 2000
 Flew STS-110 on Atlantis in 2002
 Total time in space: 32 days 11 hours 2 minutes

BLUFORD, Guion S., Jr, Colonel, U.S. Air Force (Retired)

Born November 22, 1942 in Philadelphia, Pennsylvania
 Bachelor of Science in aerospace engineering from Pennsylvania State University
 Master of Science and Doctor of Philosophy in aerospace engineering from the Air Force
 Institute of Technology
 Master of Business Administration from the University of Houston-Clear Lake
 Flew STS-8 on Challenger in 1983
 Flew STS-61-A on Challenger in 1985
 Flew STS-39 on Discovery in 1991
 Flew STS-53 on Discovery in 1992
 Total time in space: 28 days 17 hours 47 minutes

BOBKO, Karol J., Colonel, U.S. Air Force (Retired)

Born December 23, 1937 in New York, New York
 Bachelor of Science from the U.S. Air Force Academy
 Master of Science in aerospace engineering from the University of Southern California
 Flew STS-6 on Challenger in 1983
 Flew STS-51-D on Discovery in 1985
 Flew STS-51-J on Atlantis in 1985
 Total time in space: 16 days 2 hours 3 minutes

BORMAN, Frank, Colonel, U.S. Air Force (Retired)

Born March 14, 1928 in Gary Indiana

Bachelor of Science the U.S. Military Academy
Master of Science in aeronautical engineering from the California Institute of Technology
Flew Gemini 7 in 1965
Flew Apollo 8 in 1968
Total time in space: 19 days 21 hours 35 minutes

BOWERSOX, Kenneth D., Captain, U.S. Navy (Retired)

Born November 14, 1956 in Portsmouth, Virginia; Hometown: Bedford, Indiana.
Bachelor of Science in aerospace engineering from the U.S. Naval Academy
Master of Science in mechanical engineering from Columbia University
Flew STS-50 on Columbia in 1992
Flew STS-61 on Endeavour in 1993
Flew STS-73 on Columbia in 1995
Flew STS-82 on Discovery in 1997
Flew Expedition 6 – STS-113 Endeavour (up) in 2002
Flew Expedition 6 – Soyuz (down) in 2003
2 EVAs with a total time of 13 hours 17 minutes
Total time in space: 211 days 14 hours 14 minutes

BRAND, Vance D., U.S. Marine Corps, Marine Corps Reserve and Air National Guard (Retired)

Born May 9, 1931 in Longmont, California
Bachelor of Science in business and Bachelor of Science in aeronautical engineering from
the University of Colorado
Master in business administration from the University of California Los Angeles
Flew ASTP in 1975
Flew STS-5 on Columbia in 1982
Flew STS-41-B on Challenger in 1984
Flew STS-35 on Columbia in 1990
Total time in space: 31 days 8 hours 3 minutes

BRANDENSTEIN, Daniel C., Captain, U.S. Navy (Retired)

Born January 17, 1943 in Watertown, Wisconsin
Bachelor of Science in mathematics & physics from the University of Wisconsin
Flew STS-8 on Challenger in 1983
Flew STS-51-G on Discovery in 1985
Flew STS-32 on Columbia in 1990
Flew STS-49 on Endeavour in 1992
Total time in space: 32 days 21 hours 3 minutes

BRIDGES, Roy D., Jr., Major General, U.S. Air Force (Retired)

Born in Atlanta, Georgia
Bachelor in engineering science from the U.S. Air Force Academy
Master of Science in astronautics from Purdue University
Flew STS-51-F on Challenger in 1985
Total time in space: 7 days 22 hours 45 minutes

BROWN, Curtis L., Jr., Colonel, U.S. Air Force (Retired)

Born March 11, 1956 in Elizabethtown, North Carolina
Bachelor of Science in electrical engineering from the U.S. Air Force Academy
Flew STS-47 on Endeavour in 1992
Flew STS-66 on Atlantis in 1994

Flew STS-77 on Endeavour in 1996
Flew STS-85 on Discovery in 1997
Flew STS-95 on Discovery in 1998
Flew STS-103 on Discovery in 1999
Total time in space: 57 days 15 hours 7 minutes

BROWN, Mark N., Colonel, U.S. Air Force (Retired)
Born November 18, 1951 in Valparaiso, Indiana
Bachelor of Science in aeronautical & astronautical engineering from Purdue University
Master of Science in astronautical engineering from the Air Force Institute of Technology
Flew STS-28 on Columbia in 1989
Flew STS-48 on Discovery in 1991
Total time in space: 10 days 9 hours 27 minutes

BUCHLI, James F., Colonel, U.S. Marine Corps (Retired)
Born June 20, 1945 in New Rockford, North Dakota: Hometown: Fargo, North Dakota.
Bachelor of Science in aeronautical engineering from the U.S. Naval Academy
Master of Science in aeronautical engineering systems from the University of West Florida
Flew STS-51-C on Discovery in 1985
Flew STS-61-A on Challenger in 1985
Flew STS-29 on Discovery in 1989
Flew STS-48 on Discovery in 1991
Total time in space: 20 days 10 hours 24 minutes

BUCKEY, Jay Clark, Civilian
Payload Specialist
Born June 6, 1956 in New York, New York
Bachelor of Science in electrical engineering Cornell University
Doctorate in Medicine Cornell University
Flew on STS-90 on Columbia 1998
Total time in space: 15 days 21 hours 51 minutes

BURSCH, Daniel W., Captain, U.S. Navy (Retired)
Born July 25, 1957 in Bristol, Pennsylvania; Hometown: Vestal, New York.
Bachelor of Science in physics from the U.S. Naval Academy
Master of Science in engineering science from the Naval Postgraduate School
Flew STS-51 on Discovery in 1993
Flew STS-68 on Endeavour in 1994
Flew STS-77 on Endeavour in 1996
Flew Expedition 4: STS-108 Endeavour (up) and STS-111 Endeavour (down) in 2002
2 EVAs with a total time of 11 hours 48 minutes
Total time in space: 226 days 22 hours 16 minutes

CAMERON, Kenneth D., Colonel, U.S. Marine Corps (Retired)
Born in Cleveland Ohio
Bachelor of Science and Master of Science in aeronautics & astronautics from MIT
Graduated from U.S. Navy test pilot school
Master of business administration from Michigan State University
Flew STS-37 on Atlantis in 1991
Flew STS-56 on Discovery in 1993
Flew STS-74 on Atlantis in 1995
Total time in space: 23 days 10 hours 11 minutes

CAREY, Duane G., Lt. Colonel, U.S. Air Force (Retired)

Born April 30, 1957 in St. Paul, Minnesota
 Bachelor of Science in aerospace engineering & mechanics from the University of Minnesota-Minneapolis
 Master of Science in aerospace engineering from the University of Minnesota-Minneapolis
 Flew STS-109 on Columbia in 2002
 Total time in space: 10 days 22 hours 11 minutes

CARPENTER, M. Scott, Commander, U.S. Navy (Retired)

Born May 1, 1925 in Boulder, Colorado
 Bachelor of Science in aeronautical engineering from the University of Colorado
 Flew Mercury 7 in 1962
 Total time in space: 4 hours 54 minutes

CARR, Gerald P., Colonel, U.S. Marine Corps (Retired)

Born August 22, 1932 in Denver, Colorado
 Bachelor of Engineering in mechanical engineering from the University of Southern California
 Bachelor of Science in aeronautical engineering from the U. S. Naval Post Graduate School
 Master of Science in aeronautical engineering from Princeton University
 Honorary Doctor of Science in aeronautical engineering from Parks College-St. Louis University
 Flew Skylab 4 in 1974
 3 EVAs with total time of 15 hours 48 minutes
 Total time in space: 84 days 1 hour 15 minutes

CENKER, Robert, Civilian

Payload Specialist
 Born Nov. 5, 1948 in Uniontown, Pennsylvania
 Bachelor in aerospace engineering from Penn State
 Masters in aerospace engineering from Penn State
 Masters in electrical engineering from Rutgers University
 Flew on STS 61-C on Columbia
 Total time in space: 6 days 2 hours 3 minutes

CERNAN, Eugene A., Captain, U.S. Navy (Retired)

Born March 14, 1934 in Chicago, Illinois
 Bachelor of Science in electrical engineering from Purdue University
 Master of Science in aeronautical engineering from the U.S Navy Postgraduate School
 Flew Gemini 9 in 1966
 Flew Apollo 10 in 1969
 Flew Apollo 17 in 1972
 4 EVAs with total time of 24 hours 11 minutes
 Total time in space: 23 days 14 hours 15 minutes

CHANG-DIAZ, Franklin R., Civilian

Born April 5, 1950 in San Jose, Costa Roca
 Bachelor of Science in mechanical engineering from the University of Connecticut
 Doctor of Philosophy in applied plasma physics from MIT

Flew STS-61-C on Columbia in 1986
 Flew STS-34 on Atlantis in 1989
 Flew STS-46 on Atlantis in 1992
 Flew STS-60 on Discovery in 1994
 Flew STS-75 on Columbia in 1996
 Flew STS-91 on Discovery in 1998
 Flew STS-111 on Endeavour in 2002
 3 EVAs with total time of 19 hours 31 minutes
 Total time in space: 66 days 18 hours 16 minutes

CHAPMAN, Philip K., Civilian

Born March 5, 1935 in Melbourne, Australia
 Bachelor of Science in physics and mathematics from the University of Sydney
 Master of Science in aeronautics and astronautics from MIT
 Doctor of Science in instrumentation for MIT
 Total time in space: 0 (un-flown)

CHIAO, Leroy, Civilian

Born August 28, 1960 in Milwaukee, Wisconsin; Hometown: Danville, California.
 Bachelor of Science in chemical engineering from the University of California-Berkeley
 Master of Science and Doctorate in chemical engineering from the University of California-Santa Barbara
 Flew STS-65 on Columbia in 1994
 Flew STS-72 on Endeavour in 1996
 Flew STS-92 on Discovery in 2000
 Flew Expedition 10 on Soyuz in 2004-2005
 6 EVAs with a total time of 36 hours 7 minutes
 Total time in space: 229 days 7 hours 38 minutes

CHILTON, Kevin P., General, U.S. Air Force (Retired)

Born November 3, 1954 in Los Angeles, California
 Bachelor of Science in engineering sciences from the U.S Air Force Academy
 Master of Science in mechanical engineering from Columbia University
 Flew STS-49 on Endeavour in 1992
 Flew STS-59 on Endeavour in 1994
 Flew STS-76 on Atlantis in 1996
 Total time in space: 29 days 4 hours 23 minutes

CLEAVE, Mary L., Civilian

Born February 5, 1947 in Southampton, New York
 Bachelor of Science in biological sciences from Colorado State University
 Master of Science in microbial ecology from Utah State University
 Doctor of Philosophy in environmental engineering from Utah State University
 Flew STS-61B -on Atlantis in 1985
 Flew STS-30 on Atlantis in 1989
 Total time in space: 10 days 22 hours 1 minute

CLIFFORD, Michael R., Lt. Colonel, U.S. Army (Retired)

Born October 13, 1952 in San Bernardino, California; Hometown: Ogden, Utah.
 Bachelor of Science from U.S. Military Academy
 Master of Science in aerospace engineering from the Georgia Institute of Technology

Flew STS-53 on Discovery in 1992
Flew STS-59 on Endeavour in 1994
Flew STS-76 on Atlantis in 1996
1 EVA with total time of 6 hours 2 minutes
Total time in space: 27 days 18 hours 25 minutes

COATS, Michael L., Captain, U.S. Navy (Retired)
Born January 16, 1946 in Sacramento, California
Bachelor of Science from the U.S Naval Academy
Master of Science in administration of science & technology from George Washington University
Master of Science in aeronautical engineering from the U.S Naval Postgraduate School
Flew STS-41-D on Discovery in 1984
Flew STS-29 on Discovery in 1989
Flew STS-39 on Discovery in 1991
Total time in space: 19 days 7 hours 57 minutes

COLLINS, Eileen M., Colonel, U.S Air Force (Retired)
Born November 19, 1956 in Elmira, New York
Bachelor of Arts in mathematics & economics from Syracuse University
Master of Science in operations research from Stanford University
Master of Arts in space systems management from Webster University
Flew STS-63 on Discovery in 1995
Flew STS-84 on Atlantis in 1997
Flew STS-93 on Columbia in 1999
Flew STS-114 on Discovery in 2005
Total time in space: 37 days 2 hours 10 minutes

COLLINS, Michael, Civilian Major General, U.S. Air Force Reserve (Retired)
Born October 31, 1930 in Rome, Italy
Bachelor of Science from the U.S Military Academy
Flew Gemini 10 in 1966
Flew Apollo 11 in 1969
1 EVA with total time of 1 hour and 27 minutes
Total time in space: 11 days 2 hours 4 minutes

COVEY, Richard O., Colonel, U.S. Air Force (Retired)
Born August 1, 1946 in Fayetteville, Arkansas; Hometown: Fort Walton Beach, Florida.
Bachelor of Science in engineering sciences from the U.S. Air Force Academy
Master of Science in aeronautics and astronautics from Purdue University
Flew STS-51-I on Discovery in 1985
Flew STS-26 on Discovery in 1988
Flew STS-38 on Atlantis in 1990
Flew STS-61 on Endeavour in 1994
Total time in space: 26 days 21 hours 11 minutes

CREIGHTON, John O., Captain, U.S. Navy (Retired)
Born April 28, 1943 in Orange, Texas
Bachelor of Science from the U.S. Naval Academy
Master of Science in administration of science & technology from George Washington University

Flew STS-51-G on Discovery in 1985
Flew STS-36 on Atlantis in 1990
Flew STS-48 on Discovery in 1991
Total time in space: 16 days 20 hours 26 minutes

CRIPPEN, Robert L., Captain, U.S. Navy (Retired)
Born September 11, 1937 in Beaumont, Texas
Bachelor of Science in aerospace engineering from the University of Texas
Flew STS-1 on Columbia in 1981
Flew STS-7 on Challenger in 1983
Flew STS-41-C on Challenger in 1984 (April)
Flew STS-41-G on Challenger in 1984 (October)
Total time in space: 23 days 13 hours 48 minutes

CROUCH, Roger K., Civilian
Payload Specialist
Born September 12, 1940 in Jamestown, Tennessee
Bachelor of Science in physics from the Tennessee Polytechnic Institute
Masters of Science and Doctor of Philosophy in physics from the Virginia Polytechnic Institute.
Flew STS-83 on Columbia in 1997
Flew STS-94 on Columbia in 1997
Total time in space: 19 days 15 hours 58 minutes

CULBERTSON, Frank L., Jr., Captain, U.S. Navy (Retired)
Born May 15, 1949 in Charleston, South Carolina; Hometown: Holly Hill, South Carolina.
Bachelor of Science in aerospace engineering from the U.S. Naval Academy
Flew STS-38 on Atlantis in 1990
Flew STS-51 on Discovery in 1993
Flew Expedition 3: STS-105 Discovery (up) and STS-108 Endeavour (down) in 2001
1 EVA with total time of 5 hours 4 minutes
Total time in space: 143 days 14 hours 50 minutes

CUNNINGHAM, Walter, Civilian Colonel, U.S. Marine Corps Reserve (Retired)
Born March 16, 1932 in Creston, Iowa
Bachelor of Arts and Master of Arts in physics from the University of California-Los Angeles
Flew Apollo 7 in 1968
Total time in space: 10 days 20 hours 8 minutes

CURBEAM, Robert L., Jr., Captain, U.S. Navy (Retired)
Born March 5, 1962 in Baltimore, Maryland
Bachelor of Science in aerospace engineering from the U.S. Naval Academy
Master of Science in aeronautical engineering from the Naval Postgraduate School
Degree in aeronautical & astronautical engineering from Naval Postgraduate School
Flew STS-85 on Discovery in 1997
Flew STS-98 on Atlantis in 2001
Flew STS-116 on Discovery in 2006
7 EVAs with a total time of 45 hours 34 minutes
Total time in space: 37 days 14 hours 33 minutes

DAVIS, N. Jan, Civilian

Born November 1, 1953 in Cocoa Beach, Florida; Hometown: Huntsville, Alabama.
 Bachelor of Science in applied biology from the Georgia Institute of Technology
 Bachelor of Science in mechanical engineering from Auburn University
 Master of Science and Doctor of Philosophy in mechanical engineering from the University
 of Alabama-Huntsville
 Flew STS-47 on Endeavour in 1992
 Flew STS-60 on Discovery in 1994
 Flew STS-85 on Discovery in 1997
 Total time in space: 28 days 58 minutes

DELUCAS, Lawrence J., Civilian

Payload Specialist
 Born July 11, 1950 in Syracuse, N. Y.
 Bachelor of Science and Master of Science in chemistry from the University of Alabama at
 Birmingham. (UAB)
 Bachelor of Science degree in physiological optics from UAB
 Doctorate in Optometry and Doctorate in biochemistry from UAB
 Flew on STS-50 aboard Columbia in 1992
 Time in space: 13 hours 19 hours 30 minutes

DUFFY, Brian, Colonel, U.S. Air Force (Retired)

Born June 20, 1953 in Boston, Massachusetts
 Bachelor of Science in mathematics from the U.S. Air Force Academy
 Master of Science in systems management from the University of Southern California
 Flew STS-45 on Atlantis in 1992
 Flew STS-57 on Endeavour in 1993
 Flew STS-72 on Endeavour in 1996
 Flew STS-92 on Discovery in 2000
 Total time in space: 40 days 17 hours 35 minutes

DUKE, Charles M., Jr., Brig. General, U.S. Air Force (Retired)

Born October 3, 1935 in Charlotte, North Carolina
 Bachelor of Science in naval sciences from the U.S. Naval Academy
 Master of Science in aeronautics from MIT
 Flew Apollo 16 in 1972
 3 EVAs with total time of 20 hours 15 minutes
 Total time in space: 11 days 1 hour 51 minutes

DUNBAR, Bonnie, Civilian

Born March 3, 1949 in Sunnyside Washington
 Bachelor of Science and Master of Science in ceramic engineering from the University of
 Washington
 Doctor of Philosophy in mechanical/biomedical engineering from the University of Houston
 Certified Professional Engineer in Texas
 Flew STS-61-A on Challenger in 1985
 Flew STS-32 on Columbia in 1990
 Flew STS-50 on Columbia in 1992
 Flew STS-71 on Atlantis in 1995
 Flew STS-89 on Endeavour in 1998
 Total time in space: 50 days 7 hours 40 minutes

DURRANCE, Samuel T., Civilian

Payload Specialist

Born Sept. 17, 1943 in Tallahassee, Florida; Hometown: Tampa, Florida.

Bachelor of Science and Master of Science in physics from California State University, Los Angeles, California.

Doctor of Philosophy astro-geophysics from the University of Colorado

Flew STS 35 on Columbia in 1990

Flew STS 67 on Endeavour in 1995

Total time in space: 25 days 14 hours 14 minutes

EDWARDS, Joe F., Jr., Commander, U.S. Navy (Retired)

Born February 3, 1958 in Richmond, Virginia; Hometowns: Raonold and Lineville, Alabama.

Bachelor of Science in aerospace engineering from the U.S. Naval Academy

Master of Science in aviation systems from the University of Tennessee-Knoxville

Flew STS-89 on Endeavour in 1998

Total time in space: 8 days 19 hours 1 minute

ENGLAND, Anthony W., Civilian

Born May 15, 1942 in Indianapolis, Indiana; Hometown: West Fargo, North Dakota.

Bachelor of Science and Master of Science in geology from MIT

Doctor of Philosophy in geophysics from MIT

Flew STS-51-F on Challenger in 1985

Total time in space: 7 days 22 hours 45 minutes

ENGLE, Joe H., Major General, Air National Guard/U.S. Air Force (Retired)

Born August 26, 1932 in Dickinson County, Kansas

Bachelor of Science in aeronautical engineering from the University of Kansas

Flew 16 flights in USAF/NASA X-15 – Flew 3 flights into space

Flew ALT flights 2 and 4

Flew STS-2 on Columbia in 1981

Flew STS-51-I on Discovery in 1985

Total time in space: 9 days 8 hours 30 minutes

FABIAN, John M., Colonel, U.S. Air Force (Retired)

Born January 28, 1939 in Goosecreek, Texas; Hometown: Pullman, Washington.

Bachelor of Science in mechanical engineering from Washington State University

Master of Science in aerospace engineering from the U.S. Air Force Institute of Technology

Doctor of Philosophy in aeronautics & astronautics from the University of Washington

Flew STS-7 on Challenger in 1983

Flew STS-51-G on Discovery in 1985

Total time in space: 13 days 4 hours 3 minutes

FERGUSON, Christopher J., Captain, U.S. Navy (Retired)

Born September 1, 1961 in Philadelphia, Pennsylvania

Bachelor of Science in mechanical engineering from Drexel University

Master of Science in aeronautical engineering from the U.S. Naval Postgraduate School

Flew STS-115 on Atlantis in 2006

Flew STS-126 on Endeavour in 2008

Flew STS-135 on Atlantis in 2011

Total time in space: 40 days 10 hours 4 minutes

FETTMAN, Martin J., Civilian

Payload Specialist
 Born December 31, 1956 in Brooklyn, New York
 Bachelor of Science in animal nutrition from Cornell University
 Doctor of Philosophy in physiology from Colorado State University
 Flew STS-58 on Columbia
 Time in space: 14 days 12 minutes

FISHER, William F., (M.D.) Civilian

Born April 1, 1946 in Dallas, Texas
 Bachelor of Arts from Stanford University
 Master of Science in engineering from the University of Houston
 Doctor of Medicine from the University of Florida
 Flew STS-51-I on Discovery in 1985
 2 EVAs with total time of 11 hours 52 minutes
 Total time in space: 7 days 2 hours 17 minutes

FULLERTON, C. Gordon, Colonel, U.S. Air Force (Retired)

Born October 11, 1936 in Rochester, New York
 Bachelor of Science and Master of Science in mechanical engineering from the California Institute of Technology
 Flew STS-3 on Columbia in 1982
 Flew STS-51-F on Challenger in 1985
 Total time in space: 15 days 22 hours 50 minutes

GAFFNEY, F. Andrew (Drew), Civilian

Payload Specialist
 Born June 9, 1946 in Carlsbad, New Mexico
 Bachelor of Arts in psychology from the University of California, Berkeley
 Doctorate of Medicine from the University of New Mexico
 Flew STS-40 on Columbia in 1991
 Total time in space: 9 days 2 hours 14 minutes

GARDNER, Dale A., Captain, U.S. Navy (Retired)

Born November 8, 1948 in Fairmont, Minnesota
 Bachelor of Science in engineering physics from the University of Illinois
 Flew STS-8 on Challenger in 1983
 Flew STS-51-A on Discovery in 1984
 2 EVAs with total time of 12 hours 14 minutes
 Total time in space: 14 days 0 hours 53 minutes

GARDNER, Guy S., Colonel, U.S. Air Force (Retired)

Born January 6, 1948 in Alta-Vista, Virginia
 Bachelor of Science in engineering sciences, astronautics and mathematics from the U.S. Air Force Academy
 Master of Science in astronautics from Purdue University
 Flew STS-27 on Atlantis in 1988
 Flew STS-35 on Columbia in 1990
 Total time in space: 13 days 8 hours 10 minutes

GARN, Jake, U. S. Senator

Payload Specialist

Born October 12, 1932 in Richfield, Utah

Bachelor of Science in business and finance from the University of Utah

Flew STS-51D on Discovery in 1985

Total time in space: 6 days 23 hours 55 minutes

GARRIOTT, Owen K., Civilian

Born November 22, 1930 in Enid, Oklahoma

Bachelor of Science in electrical engineering from the University of Oklahoma

Master of Science and Doctor of Philosophy in electrical engineering from Stanford University

Flew Skylab 3 in 1973

Flew STS-9 on Columbia in 1983

3 EVAs with total time of 13 hours 42 minutes

Total time in space: 69 days 18 hours 56 minutes

GEMAR, Charles D., Lt. Colonel, U.S. Army

Born August 4, 1955 in Yanktown, South Dakota; Hometown: Scotland, South Dakota.

Bachelor of Science in engineering from the U.S. Military Academy

Flew STS-38 on Atlantis in 1990

Flew STS-48 on Discovery in 1991

Flew STS-62 on Columbia in 1994

Total time in space: 24 days 5 hours 38 minutes

GIBSON, Edward G., Civilian

Born November 8, 1936 in Buffalo, New York

Bachelor of Science in engineering from the University of Rochester

Master of Science in engineering and Doctor of Philosophy in engineering from the California Institute of Technology

Flew Skylab 4 in 1974

3 EVAs with total time of 15 hours 17 minutes

Total time in space: 84 days 1 hour 15 minutes

GIBSON, Robert L. "Hoot", Captain, U.S. Navy (Retired)

Born October 30, 1946 in Cooperstown, New York; Hometown: Lakewood, California.

Bachelor of Science in aeronautical engineering from the California Polytechnic Institute

Flew STS-41-B on Challenger in 1984

Flew STS-61-C on Columbia in 1986

Flew STS-27 on Atlantis in 1988

Flew STS-47 on Endeavour in 1992

Flew STS-71 on Atlantis in 1995

Total time in space: 36 days 4 hours 19 minutes

GLENN, John H., Jr., Colonel, U.S. Marine Corps (Retired)

Born July 18, 1921 in Cambridge, Ohio

Bachelor of Science in engineering from Muskingum College

Flew Mercury 6 in 1962

Flew STS-95 on Discovery in 1998

Total time in space: 9 days 2 hours 39 minutes

GODWIN, Linda M., Civilian

Born July 2, 1952 in Cape Girardeau, Missouri Hometown: Jackson, Missouri
 Bachelor of Science in mathematics & physics from Southeast Missouri State
 Master of Science and Doctor of Philosophy in physics from the University of Missouri
 Flew STS-37 on Atlantis in 1991
 Flew STS-59 on Endeavour in 1994
 Flew STS-76 on Atlantis in 1996
 Flew STS-108 on Endeavour in 2001
 2 EVAs with total time of 10 hours 14 minutes
 Total time in space: 38 days 6 hours 33 minutes

GORDON, Richard F., Jr., Captain, U.S. Navy (Retired)

Born October 5, 1929 in Seattle, Washington
 Bachelor of Science in chemistry from the University of Washington
 Flew Gemini 11 in 1966
 Flew Apollo 12 in 1969
 1 EVA with total time of 38 minutes
 Total time in space: 13 days 3 hours 53 minutes

GORIE, Dominic L., Captain, U.S. Navy (Retired)

Born May 2, 1957 in Lake Charles, Louisiana
 Bachelor of Science in ocean engineering from the U.S. Naval Academy
 Master of Science in aviation systems from the University of Tennessee
 Flew STS-91 on Discovery in 1998
 Flew STS-99 on Endeavour in 2000
 Flew STS-108 on Endeavour in 2001
 Flew STS-123 on Endeavour in 2008
 Total time in space: 48 days 15 hours 27 minutes

GRABE, Ronald J., Colonel, U.S. Air Force (Retired)

Born June 13, 1945 in New York, New York
 Bachelor of Science in engineering science from the U.S. Air Force Academy
 Flew STS-51-J on Atlantis in 1985
 Flew STS-30 on Atlantis in 1989
 Flew STS-42 on Discovery in 1992
 Flew STS-57 on Endeavour in 1993
 Total time in space: 26 days 3 hours 11 minutes

GRAVELINE, Duane F., Civilian

Born March 2, 1931 in Newport, Vermont
 Bachelor of Science from the University of Vermont
 Master of Science in public health from John Hopkins University
 Doctor of Medicine from the University of Vermont
 Total time in Space: 0 (un-flown)

GREGORY, Frederick D., Colonel, U.S. Air Force (Retired)

Born January 7, 1941 in Washington DC
 Bachelor of Science from the U.S. Air Force Academy
 Master in information systems from George Washington University
 Flew STS-51-B on Challenger in 1985
 Flew STS-33 on Discovery in 1989

Flew STS-44 on Atlantis in 1991
Total time in space: 18 days 23 hours 7 minutes

GREGORY, William G., Lt. Colonel, U.S. Air Force (Retired)
Born May 14, 1957 in Lockport, New York
Bachelor of Science in engineering science from the U.S. Air Force Academy
Master of Science in engineering mechanics from Columbia University
Master of Science in management from Troy State University
Flew STS-67 on Endeavour in 1995
Total time in space: 16 days 15 hours 8 minutes

GUTERREZ, Sidney M., Colonel, U.S. Air Force (Retired)
Born June 27, 1951 in Albuquerque, New Mexico
Bachelor of Science in aeronautical engineering from the U.S. Air Force Academy
Master of Arts in management from Webster College
Flew STS-40 on Columbia in 1991
Flew STS-59 on Endeavour in 1994
Total time in space: 20 days 8 hours 3 minutes

HAISE, Fred W., Jr., Civilian
Born November 14, 1933 in Biloxi, Mississippi
Bachelor of Science in aeronautical engineering from the University of Oklahoma
Flew ALT tests 1, 3, 5
Flew Apollo 13 in 1970
Total time in space: 5 days 22 hours 54 minutes

HALSELL, James D., Jr., Colonel, U.S. Air Force (Retired)
Born September 29, 1956 in Monroe, Louisiana
Bachelor of Science in engineering from the U.S. Air Force Academy
Master of Science in management from Troy State University
Master of Science in space operations from the U.S. Air Force Institute of Technology
Flew STS-65 on Columbia in 1994
Flew STS-74 on Atlantis in 1995
Flew STS-83 on Columbia in 1997
Flew STS-94 on Columbia in 1997
Flew STS-101 on Atlantis in 2000
Total time in space: 52 days 10 hours 34 minutes

HAM, Kenneth T., Captain, U.S. Navy
Born December 12, 1964 in Plainfield, New Jersey
Bachelor of Science in aerospace engineering from the U.S. Naval Academy
Master of Science in aeronautical engineering from the Naval Postgraduate School
Flew STS-124 on Discovery in 2008
Flew STS-132 on Atlantis in 2010
Total time in space: 25 days 12 hours 41 minutes

HAMMOND, L. Brain, Jr., Colonel, U.S. Air Force (Retired)
Born January 16, 1952 in Savannah, Georgia; Hometown: St. Louis, Missouri.
Bachelor of Science in engineering science and mechanics from the U. S. Air Force Academy

Master of Science in engineering science and mechanics from the Georgia Institute of Technology

Flew STS-39 on Discovery in 1991

Flew STS-64 on Discovery in 1994

Total time in space: 19 days 6 hours 12 minutes

HARBAUGH, Gregory J., Civilian

Born April 15, 1956 in Cleveland, Ohio; Hometown: Willoughby, Ohio.

Bachelor of Science in aeronautical and astronautical engineering from Purdue

Master of Science in physical science from the University of Houston-Clear Lake

Flew STS-39 on Discovery in 1991

Flew STS-54 on Endeavour in 1993

Flew STS-71 on Atlantis in 1995

Flew STS-82 on Discovery in 1997

3 EVAs with total time of 18 hours 29 minutes

Total time in space: 34 days 1 hour 59 minutes

HARRIS, Bernard A., Jr., Civilian

Born June 26, 1956 in Temple, Texas

Bachelor of Science in biology from the University of Houston

Doctor of Medicine from Texas Tech University

Flew STS-55 on Columbia in 1993

Flew STS-63 on Discovery in 1995

1 EVA with total time of 4 hours 39 minutes

Total time in space: 18 days 6 hours 8 minutes

HART, Terry J., Civilian

Born October 27, 1946 in Pittsburgh, Pennsylvania

Bachelor of Science in mechanical engineering from Lehigh University

Master of Science in mechanical engineering from MIT

Master of Science in electrical engineering from Rutgers University

Honorary Doctor of engineering from Lehigh University

Flew STS-41-C on Challenger in 1984

Total time in space: 6 days 23 hours 40 minutes

HARTSFIELD, Henry W., Jr., Colonel, U.S. Air Force (Retired)

Born November 21, 1933 in Birmingham, Alabama

Bachelor of Science in physics from Auburn University

Master of Science in engineering science from the University of Tennessee

Flew STS-4 on Columbia in 1982

Flew STS-41-D on Discovery in 1984

Flew STS-61-A on Challenger in 1985

Total time in space: 20 days 2 hours 50 minutes

HAUCK, Frederick H., Captain, U.S. Navy (Retired)

Born April 11, 1941 in Long Beach, California

Bachelor of Science in physics from Tufts University

Master of Science in nuclear engineering from MIT

Flew STS-7 on Challenger in 1983

Flew STS-51-A on Discovery in 1984

Flew STS-26 on Discovery in 1988

Total time in space: 18 days 3 hours 9 minutes

HAWLEY, Steven A., Civilian

Born December 12, 1951 in Ottawa, Kansas; Hometown: Salina, Kansas.
Bachelor of Arts in physics & astronomy from the University of Kansas
Doctor of Philosophy in astronomy & astrophysics from the University of California
Flew STS-41-D on Discovery in 1984
Flew STS-61-C on Columbia in 1986
Flew STS-31 on Discovery in 1990
Flew STS-82 on Discovery in 1997
Flew STS-93 on Columbia in 1999
Total time in space : 32 days 2 hours 42 minutes

HELMS, Susan J., Lt. Gen., U.S. Air Force

Born February 26, 1958 in Charlotte, North Carolina; Hometown: Portland, Oregon.
Bachelor of Science in aeronautical engineering from the U.S. Air Force Academy
Master of Science in aeronautics and astronautics from Stanford University
Flew STS-54 on Endeavour in 1993
Flew STS-64 on Discovery in 1994
Flew STS-78 on Columbia in 1996
Flew STS-101 on Atlantis in 2000
Flew Expedition 2: STS-102 Discovery (up) and STS-105 Discovery (down) in 2001
1 EVA with total time of 8 hours 56 minutes
Total time in space: 210 days 23 hours 6 minutes

HENNEN, Thomas J. Chief Warrant Officer, U. S. Army (Retired)

Payload Specialist
Born Aug. 17, 1952 in Albany, Georgia; Hometown: Columbus, Ohio.
Flew on STS-44 on Atlantis in 1991
Total time in space: 6 days 22 hours 50 minutes

HENDRICKS, Terence T., Colonel, U.S. Air Force (Retired)

Born July 5, 1952 in Bryan, Ohio Hometown: Woodville, Ohio
Bachelor of Science in civil engineering from the U.S. Air Force Academy
Master of Arts in public administration from Golden Gate University
Flew STS-44 on Atlantis in 1991
Flew STS-55 on Columbia in 1993
Flew STS-70 on Discovery in 1995
Flew STS-78 on Columbia in 1996
Total time in space: 42 days 18 hours 38 minutes

HERNANDEZ, Jose M., Civilian

Born August 7, 1962 in French Camp, California; Hometown: Stockton, California.
Bachelor of Science in electrical engineering from the University of the Pacific
Master of Science in electrical & computer engineering from the University of
California-Santa Barbara
Flew STS-128 on Discovery in 2009
Total time in space: 13 days 20 hours 54 minutes

HERRINGTON, John B., Commander, U.S. Navy (Retired)

Born September 14, 1958 in Wetumka, Oklahoma
Bachelor of Science in applied mathematics from the University of Colorado
Master of Science in aeronautical engineering from the U.S. Naval Postgraduate School

Flew STS-113 on Endeavour in 2002
3 EVAs with total time of 19 hours 55 minutes
Total time in space: 13 days 18 hours 47 minutes

HIEB, Richard J., Civilian

Born September 21, 1955 in Jamestown, North Dakota
Bachelor of Arts in mathematics and physics from Northwest Nazarene College
Master of Science in aerospace engineering from the University of Colorado
Flew STS-39 on Discovery in 1991
Flew STS-49 on Endeavour in 1992
Flew STS-65 on Columbia in 1994
3 EVAs with total time of 17 hours 38 minutes
Total time in space: 31 days 22 hours 34 minutes

HIGGINBOTHAM, Joan E., Civilian

Born August 3, 1964 in Chicago, Illinois
Bachelor of Science in electrical engineering from Southern Illinois University-Carbondale
Masters of management from the Florida Institute of Technology and Masters in space systems from Florida Institute of Technology
Flew STS-116 on Discovery in 2006
Total time in space: 12 days 20 hours 45 minutes

HILMERS, David O., Colonel, U.S Marine Corps (Retired)

Born January 28, 1950 in Clinton, Iowa
Bachelor of Arts in mathematics from Cornell University
Master of Science in electrical engineering from the U.S. Naval Postgraduate School
Flew STS-51-J on Atlantis in 1985
Flew STS-26 on Discovery in 1988
Flew STS-36 on Atlantis in 1990
Flew STS-42 on Discovery in 1992
Total time in space: 20 days 14 hours 17 minutes

HOBBAUGH, Charles O., Colonel, U.S. Marine Corps (Retired)

Born November 6, 1961 in Bar Harbor, Maine
Bachelor of Science in aerospace engineering from the U.S. Naval Academy
Flew STS-104 on Atlantis in 2001
Flew STS-118 on Endeavour in 2007
Flew STS-129 on Atlantis in 2009
Total time in space: 36 days 9 hours 47 minutes

HOFFMAN, Jeffrey A., Civilian

Born November 2, 1944 in Brooklyn, New York; Hometown: Scarsdale, New York.
Bachelor of Arts in astronomy from Amherst College
Master degree in materials science from Rice University
Doctor of Philosophy in astrophysics from Harvard University
Flew STS-51-D on Discovery in 1985
Flew STS-35 on Columbia in 1990
Flew STS-46 on Atlantis in 1992
Flew STS-61 on Endeavour in 1993
Flew STS-75 on Columbia in 1996
4 EVAs with total time of 25 hours 8 minutes
Total time in space: 50 days 11 hours 54 minutes

HOLMQUEST, Donald L., Civilian

Born April 7, 1939 in Dallas, Texas

Bachelor of Science in electrical engineering from Southern Methodist University

Doctor of Philosophy in physiology from Baylor University

Doctor of Medicine from Baylor University

Juris Doctor degree from University of Houston

Total time in space: 0 (un-flown)

HOROWITZ, Scott J., Colonel, U.S. Air Force (Retired)

Born March 24, 1957 in Philadelphia, Pennsylvania; Hometown: Thousand Oaks, Calif.

Bachelor of Science in engineering from the California State University-Northridge

Master of Science in aerospace engineering from the Georgia Institute of Technology

Doctor of Philosophy in aerospace engineering from the Georgia Institute of Technology

Flew STS-75 on Columbia in 1996

Flew STS-82 on Discovery in 1997

Flew STS-101 on Atlantis in 2000

Flew STS-105 on Discovery in 2001

Total time in space: 47 days 9 hours 6 minutes

HUGHES-FULFORD, Millie, Civilian

Payload Specialist

Born December 21, 1945 in Mineral Wells, Texas

Bachelor of Science in chemistry and biology from Tarleton State University

Doctorate of Philosophy from Texas Woman's University

Flew STS-40 on Columbia in 1991

Total time in space: 9 days 2 hours 14 minutes

IVINS, Marsha S., Civilian

Born April 15, 1951 in Baltimore, Maryland

Bachelor of Science in aerospace engineering from the University of Colorado

Flew STS-32 on Columbia in 1990

Flew STS-46 on Atlantis in 1992

Flew STS-62 on Columbia in 1994

Flew STS-81 on Atlantis in 1997

Flew STS-98 on Atlantis in 2001

Total time in space: 55 days 21 hours 48 minutes

JEMISON, Mae C., Civilian

Born October 17, 1956 in Decatur, Alabama; Hometown: Chicago, Illinois.

Bachelor of Science in chemical engineering from Stanford University

Doctor of Medicine from Cornell University

Flew STS-47 on Endeavour in 1992

Total time in space: 7 days 22 hours 30 minutes

JERNIGAN, Tamara E., Civilian

Born May 7, 1959 in Chattanooga, Tennessee

Bachelor of Science in physics from Stanford University

Master of Science in engineering science from Stanford University

Master of Science in astronomy from the University of California-Berkeley

Doctor of Philosophy in space physics and astronomy from Rice University

Flew STS-40 on Columbia in 1991

Flew STS-52 on Columbia in 1992
Flew STS-67 on Endeavour in 1995
Flew STS-80 on Columbia in 1996
Flew STS-96 on Discovery in 1999
1 EVA with total time of 7 hours 55 minutes
Total time in space: 62 days 1 hour 25 minutes

JETT, Brent W., Captain, U.S. Navy (Retired)
Born October 5, 1958 in Pontiac, Michigan; Hometown: Ft. Lauderdale, Florida.
Bachelor of Science in aerospace engineering from the U.S. Naval Academy
Master of Science in aeronautical engineering from the U.S Naval Postgraduate School
Flew STS-72 on Endeavour in 1996
Flew STS-81 on Atlantis in 1997
Flew STS-97 on Endeavour in 2000
Flew STS-115 on Atlantis in 2006
Total time in space: 41 days 18 hours 1 minute

JONES, Thomas D., Civilian
Born January 22, 1955 in Baltimore, Maryland; Hometown: Essex, Maryland.
Bachelor of Science in basic sciences from the U.S. Air Force Academy
Doctor on Philosophy in planetary science from the University of Arizona
Flew STS-59 on Endeavour in 1994
Flew STS-68 on Endeavour in 1994
Flew STS-80 on Columbia in 1996
Flew STS-98 on Atlantis in 2001
3 EVAs with total time of 19 hours 49 minutes
Total time in space: 53 days 0 hours 49 minutes

KELLY, Mark E., Captain, U.S. Navy (Retired)
Born February 21, 1964 in Orange, New Jersey; Hometown: West Orange, New Jersey.
Bachelor of Science in marine engineering & nautical science from the U.S. Merchant
Marine Academy
Master of Science in aeronautical engineering from the U.S Naval Postgraduate School
Flew STS-108 on Endeavour in 2001
Flew STS-121 on Discovery in 2006
Flew STS-124 on Discovery in 2008
Flew STS-134 on Endeavour in 2011
Total time in space 54 days 2 hours 24 minutes

KERWIN, Joseph P., Captain, Medical Corps, U.S. Navy (Retired)
Born February 19, 1932 in Oak Park, Illinois
Bachelor of Arts in philosophy from College of the Holy Cross
Doctor of Medicine from Northwestern University Medical School
Flew Skylab 2 in 1973
1 EVA with total time of 3 hours 23 minutes
Total time in space: 28 days 0 hours 50 minutes

KILRAIN (Still), Susan L., Commander, U. S. Navy (Retired)
Born October 24, 1961 in Augusta, Georgia
Bachelor of Science in aeronautical engineering from Embry-Riddle University

Master of Science in aerospace engineering from the Georgia Institute of Technology
Flew STS-83 on Columbia in 1997
Flew STS-94 on Columbia in 1997
Total time in space: 19 days 15 hours 58 minutes

KREGEL, Kevin R., Civilian

Born September 16, 1956 in New York, New York; Hometown: Amityville, New York.
Bachelor of Science in astronautical engineering from the U. S. Air Force Academy
Master of public administration from Troy State University
Flew STS-70 on Discovery in 1995
Flew STS-78 on Columbia in 1996
Flew STS-87 on Columbia in 1997
Flew STS-99 on Endeavour in 2000
Total time in space: 52 days 17 hours 21 minutes

LAWRENCE, Wendy B., Captain, U.S. Navy (Retired)

Born July 2, 1959 in Jacksonville, Florida
Bachelor of Science in ocean engineering from the U.S Naval Academy
Master of Science in ocean engineering from MIT & Woods Hole Oceanographic Institution
Flew STS-67 on Endeavour in 1995
Flew STS-86 on Atlantis in 1997
Flew STS-91 on Discovery in 1998
Flew STS-114 on Discovery in 2005
Total time in space: 50 days 22 hours 56 minutes

LEE, Mark C., Colonel, U.S. Air Force (Retired)

Born August 14, 1952 in Viroqua, Wisconsin
Bachelor of Science in civil engineering from the U.S Air Force Academy
Master of Science in mechanical engineering from MIT
Flew STS-30 on Atlantis in 1989
Flew STS-47 on Endeavour in 1992
Flew STS-64 on Discovery in 1994
Flew STS-82 on Discovery in 1997
4 EVAs with total time of 26 hours 1 minute
Total time in space: 32 days 21 hours 46 minutes

LESLIE, Fred W., Civilian

Payload Specialist
Born December 19, 1951 in Ancon, Panama
Bachelor of Science in engineering science from the University of Texas
Doctor of Philosophy and Master in meteorology from the University of Oklahoma
Flew STS-73 on Columbia in 1995
Total time in space: 15 days 21 hours 52 minutes

LICHTENBERG, Byron K., Civilian

Payload Specialist
Born in Stroudsburg, Pennsylvania
Bachelor of Science in aerospace engineering from Brown University
Master of Science in mechanical engineering MIT
Doctor of Science biomedical engineering MIT
Flew STS-9 on Columbia in 1983

Flew on STS-45 on Atlantis in 1992
Total time in space: 19 days 5 hours 56 minutes

LIND, Don L., Civilian

Born May 18, 1930 in Midvale, Utah
Bachelor of Science in physics from the University of Utah
Doctor of Philosophy in high-energy nuclear physics from the University of California-Berkley
Flew STS-51-B on Challenger in 1984
Total time in space: 7 days 0 hours 8 minutes

LINDSEY, Steven W., Colonel, U.S. Air Force (Retired)

Born August 24, 1960 in Arcadia, California; Hometown: Temple City, California.
Bachelor of Science in engineering sciences from the U.S Air Force Academy
Master of Science in aeronautical engineering from the U.S. Air Force Institute of Technology
Flew STS-87 on Columbia in 1997
Flew STS-95 on Discovery in 1998
Flew STS-104 on Atlantis in 2001
Flew STS-121 on Discovery in 2006
Flew STS-133 on Discovery in 2011
Total time in space: 62 days 22 hours 33 minutes

LINENGER, Jerry M., Captain, U. S. Navy (Retired)

Born January 16, 1955 in Mount Clemens, Michigan; Hometown: Eastpointe, Michigan.
Bachelor of Science in bioscience from the U.S. Naval Academy
Master of Science in systems management from the University of Southern California
Master of public health in health policy from the University of North Carolina
Doctor of Medicine from Wayne State University
Doctor of Philosophy in epidemiology from the University of North Carolina
Flew STS-64 on Discovery in 1995
Flew Mir: STS-81 Atlantis(up) and STS-84 Atlantis (down) in 1997
1 EVA with total time of 4 hours 57 minutes
Total time in space: 143 days 2 hours 50 minutes

LINTERIS, Gregory T., Civilian

Payload Specialist
Bachelor of Science in chemical engineering from Princeton University
Master of Science in mechanical engineering from Stanford University
Doctor of Philosophy in mechanical and aerospace engineering from Princeton University
Flew on STS-83 on Columbia in 1997
Flew on STS 94 on Columbia in 1997
Total time in space: 19 days 15 hours 58 minutes

LLEWELLYN, John A., Civilian

Born April 22, 1933 in Cardiff, Wales, United Kingdom
Bachelor of Science in chemistry from University College at Cardiff
Doctor of Philosophy in chemistry from University College of Cardiff
Total time in space: 0 (un-flown)

LOCKHART, Paul S., Colonel, U.S. Air Force (Retired)

Born April 28, 1956 in Amarillo, Texas
 Bachelor of Arts in mathematics from Texas Tech University
 Master of Science in aerospace engineering from the University of Texas
 Graduate of the Royal College of Defense Studies, London, England
 Flew STS-111 on Endeavour in 2002
 Flew STS-113 on Endeavour in 2002
 Total time in space: 27 days 15 hours 23 minutes

LOPEZ-ALEGRIA, Michael E., Captain, U.S. Navy (Retired)

Born May 30, 1958 in Madrid, Spain; Hometown: Mission Viejo, California.
 Bachelor of Science in systems engineering from the U.S. Naval Academy
 Master of Science in aeronautical engineering from the U.S. Naval Postgraduate School
 Graduate of the Harvard University Kennedy School of Government Program for Senior Executives in National and International Security
 Flew STS-73 on Columbia in 1995
 Flew STS-92 on Discovery in 2000
 Flew STS-113 on Endeavour in 2002
 Flew Expedition 14 on Soyuz in 2006
 10 EVAs with a total time of 67 hours 40 minutes
 Total time in space: 257 days 22 hours 44 minutes

LORIA, Christopher J. "Gus", Colonel, U.S. Marine Corps (Retired)

Born July 9, 1960 in Belmont, Massachusetts; Hometown: League City, Texas.
 Bachelor of Science in general engineering from the U.S. Naval Academy
 Master in public administration from Harvard University John F. Kennedy School of Government
 Total time in space: 0 (un-flown)

LOUSMA, Jack R., Colonel, U.S. Marine Corps (Retired)

Born February 29, 1936 in Grand Rapids, Michigan
 Bachelor of Science in aeronautical engineering from the University of Michigan
 Master in aeronautical engineering from the U.S. Naval Postgraduate School
 Flew Skylab 3 in 1973
 Flew STS-3 on Columbia in 1983
 2 EVAs with total time of 11 hours 1 minute
 Total time in space: 67 days 11 hours 5 minutes

LOVELL, James A., Jr., Captain, U.S. Navy (Retired)

Born March 25, 1928 in Cleveland, Ohio
 Bachelor of Science from the U.S. Naval Academy
 Advanced Management Program – Harvard Business School
 Flew Gemini 7 in 1965
 Flew Gemini 12 in 1966
 Flew Apollo 8 in 1968
 Flew Apollo 13 in 1970
 Total time in space: 29 days 19 hours 3 minutes

LU, Edward T., Civilian

Born July 1, 1963 in Springfield, Massachusetts; Hometown: Honolulu, Hawaii.
 Bachelor of Science in electrical engineering from Cornell University
 Doctor of Philosophy in applied physics from Stanford University
 Flew STS-84 on Atlantis in 1997
 Flew STS-106 on Atlantis in 2000
 Flew Expedition 7 on Soyuz in 2003
 1 EVA with total time of 6 hours 14 minutes
 Total time in space: 206 days 18 hours 32 minutes

LUCID, Shannon W., Civilian

Born January 14, 1943 in Shanghai, China; Hometown: Bethany, Oklahoma.
 Bachelor of Science in chemistry from the University of Oklahoma
 Master of Science in biochemistry from the University of Oklahoma
 Doctor of Philosophy in biochemistry from the University of Oklahoma
 Flew STS-51-G on Discovery in 1985
 Flew STS-34 on Atlantis in 1989
 Flew STS-43 on Atlantis in 1991
 Flew STS-58 on Columbia in 1993
 Flew Mir: STS-76 on Atlantis (up) and STS-79 on Atlantis (down) in 1996
 Total time in space: 223 days 2 hours 53 minutes

MAGNUS, Sandra H., Civilian

Born October 30, 1964 in Belleville, Illinois
 Bachelor of Science in physics from University of Missouri-Rolla
 Master of Science in electrical engineering from the University of Missouri-Rolla
 Doctor of Philosophy in materials science and engineering from the Georgia Institute of Technology
 Flew STS-112 on Atlantis in 2002
 Flew Expedition 18: STS-126 Endeavour (up) and STS-119 Discovery (down) in 2009
 Flew STS-135 on Atlantis in 2011
 Total time in space: 157 days 8 hours 44 minutes

MATTINGLY, Thomas K., II, Rear Admiral, U.S. Navy (Retired)

Born March 17, 1936 in Chicago, Illinois
 Bachelor of Science in aeronautical engineering from Auburn University
 Flew Apollo 16 in 1972
 Flew STS-4 on Columbia in 1982
 Flew STS-51-C on Discovery in 1985
 1 EVA with total time of 1 hour 13 minutes
 Total time in space: 21 days 4 hours 34 minutes

McBRIDE, Jon A., Captain, U.S. Navy (Retired)

Born August 14, 1943 in Charleston, West Virginia; Hometown: Beckley, West Virginia.
 Bachelor of Science in aeronautical engineering from U.S. Naval Postgraduate School
 Flew STS-41-G on Challenger in 1984
 Total time in space: 8 days 5 hours 23 minutes

McCANDLESS, Bruce, II, Captain, U.S. Navy (Retired)

Born June 8, 1937 in Boston, Massachusetts
 Bachelor of Science from U.S. Naval Academy

Master of Science in electrical engineering from Stanford University
 Master of Science in business administration from the University of Houston-Clear Lake
 Flew STS-41-B on Challenger in 1984
 Flew STS-31 on Discovery in 1990
 2 EVAs with total time of 12 hours 12 minutes
 Total time in space: 13 days 0 hours 31 minutes

McCULLEY, Michael J., Captain, U.S. Navy (Retired)

Born August 4, 1943 in San Diego, California; Hometown: Livingston, Tennessee.
 Bachelor of Science in metallurgical engineering from Purdue University
 Master of Science in metallurgical engineering from Purdue University
 Flew STS-34 on Atlantis in 1989
 Total time in space: 4 days 23 hours 41 minutes

McDIVITT, James A., Brig. General U.S. Air Force (Retired)

Born June 10, 1929 in Chicago, Illinois
 Bachelor of Science in astronautical engineering from the University of Michigan
 Flew Gemini 4 in 1965
 Flew Apollo 9 in 1969
 Total time in space: 14 days 2 hours 56 minutes

McMONAGLE, Donald R., Colonel, U.S. Air Force (Retired)

Born May 14, 1952 in Flint, Michigan
 Bachelor of Science in astronautical engineering for the U.S. Air Force Academy
 Master of Science in mechanical engineering from California State University-Fresno
 Flew STS-39 on Discovery 1991
 Flew STS-54 on Endeavour in 1993
 Flew STS-66 on Atlantis in 1994
 Total time in space: 25 days 5 hours 34 minutes

MEADE, Carl J., Colonel, U.S. Air Force (Retired)

Born November 16, 1950 at Chanute Air Force Base, Illinois
 Bachelor of Science in electronics engineering from the University of Texas
 Master of Science in electronics engineering from the California Institute of Technology
 Flew STS-38 on Atlantis in 1990
 Flew STS-50 on Columbia in 1992
 Flew STS-64 on Discovery in 1994
 1 EVA with total time of 6 hours 15 minutes
 Total time in space: 29 days 16 hours 14 minutes

MELNICK, Bruce E., Commander, U.S. Coast Guard (Retired)

Born December 5, 1949 in New York, New York
 Bachelor of Science in engineering from the U.S Coast Guard Academy
 Master of Science in aeronautical systems from the West Florida University
 Flew STS-41 on Discovery in 1990
 Flew STS-49 on Endeavour in 1992
 Total time in space: 12 days 23 hours 27 minutes

MELROY, Pamela A., Colonel, U.S. Air Force (Retired)

Born September 17, 1961 in Palo Alto, California; Hometown: Rochester, New York.
 Bachelor of Science in physics & astronomy from Wellesley College

Master of Science in earth and planetary sciences from MIT
 Flew STS-92 on Discovery in 2000
 Flew STS-112 on Atlantis in 2002
 Flew STS-120 on Discovery in 2007
 Total time in space: 38 days 20 hours 4 minutes

MICHEL, F. Curtis, Civilian

Born June 5, 1934 in LaCrosse, Wisconsin
 Bachelor of Science in physics from the California Institute of Technology
 Doctor of Philosophy in physics from the California Institute of Technology
 Total time in space: 0 (un-flown)

MITCHELL, Edger D., Captain, U.S. Navy (Retired)

Born September 17, 1930 in Hereford, Texas
 Bachelor of Science in industrial management from the Carnegie Institute of Technology
 (now Carnegie-Mellon University)
 Bachelor of Science in aeronautical engineering from U.S. Naval Postgraduate School
 Doctor of Science in aeronautics and astronautics from MIT
 Flew Apollo 14 in 1971
 2 EVAs with total time on 9 hours 17 minutes
 Total time in space: 9 days 42 minutes

MORGAN, Barbara R., Civilian

Born November 28, 1951 in Fresno, California; Hometowns: Fresno, California and
 McCall, Idaho
 Bachelor of Arts in human biology from Stanford University
 Teaching credentials from the College of Notre Dame – Belmont, California
 Flew STS-118 on Endeavour in 2007
 Total time in space: 12 days 17 hours 56 minutes

MULLANE, Richard M., Colonel, U.S. Air Force (Retired)

Born September 10, 1945 in Wichita Falls, Texas; Hometown: Albuquerque, New Mexico.
 Bachelor of Science in military engineering from the U.S. Military Academy
 Master of Science in aeronautical engineering from U.S Air Force Institute of Technology
 Flew STS-41-D on Discovery in 1984
 Flew STS-27 on Atlantis in 1988
 Flew STS-36 on Atlantis in 1990
 Total time in space: 14 days 20 hours 20 minutes

MUSGRAVE, Story, Civilian

Born August 19, 1935 in Boston, Massachusetts; Hometown: Lexington, Kentucky.
 Bachelor of Science in mathematics and statistics from Syracuse University
 Bachelor of Arts in chemistry from Marietta College
 Master of Business Administration in operations analysis and computer programming from
 the University of California-Los Angeles
 Master of Science in physiology and biophysics from the University of Kentucky
 Master of Arts in literature from the University of Houston
 Doctor of Medicine from Columbia University
 Flew STS-6 on Challenger in 1983
 Flew STS-51-F on Challenger in 1985
 Flew STS-33 on Discovery in 1989

Flew STS-44 on Atlantis in 1991
Flew STS-61 on Endeavour in 1993
Flew STS-80 on Columbia in 1996
4 EVAs with total time of 26 hours 19 minutes
Total time in space: 53 days 9 hours 55 minutes

NAGEL, Steven R., Colonel, U.S. Air Force (Retired)

Born October 27, 1946 in Canton, Illinois
Bachelor of Science in aerospace engineering from the University of Illinois
Master of Science in mechanical engineering from the California State University-Fresno
Flew STS-51-G on Discovery in 1985
Flew STS-61-A on Challenger in 1985
Flew STS-37 on Atlantis in 1991
Flew STS-55 on Columbia in 1993
Total time in space: 30 days 1 hour 36 minutes

NELSON, Bill, U. S. Senator

Payload Specialist
Born in Miami, Florida on September 29, 1942
Bachelor degree Yale University
Law degree University of Virginia
Flew STS-61C on Columbia in 1985
Total time in space: 6 days 2 hours 4 minutes

NELSON, George D., Civilian

Born July 13, 1950 in Charles City, Iowa; Hometown: Willmar, Minnesota.
Bachelor of Science in physics from Harvey Mudd College
Master of Science in astronomy from the University of Washington
Doctor of Philosophy in astronomy from the University of Washington
Flew STS-41-C on Challenger in 1984
Flew STS-61-C on Columbia in 1986
Flew STS-26 on Discovery in 1988
2 EVAs with total time of 10 hours 6 minutes
Total time in space: 17 days 2 hours 44 minutes

NEWMAN, James H., Civilian

Born October 16, 1956 in Trust Territory, Pacific Islands; Hometown: San Diego, California.
Bachelor of Arts in physics from Dartmouth College
Master of Arts in physics from Rice University
Doctor of Philosophy in physics from Rice University
Flew STS-51 on Discovery in 1993
Flew STS-69 on Endeavour in 1995
Flew STS-88 on Endeavour in 1998
Flew STS-109 on Columbia in 2002
6 EVAs with total time of 43 hours 13 minutes
Total time in space: 43 days 10 hours 1 minute

NOREIGA, Carlos I., Lt. Colonel, U.S. Marine Corps (Retired)

Born October 8, 1959 in Lima, Peru; Hometown: Santa Clara, California.
Bachelor of Science in computer science from the University of Southern California
Master of Science in computer science from the U. S. Naval Postgraduate School

Master of Science in space systems operations from the Naval Postgraduate School
Flew STS-84 on Atlantis in 1987
Flew STS-97 on Endeavour in 2000
3 EVAs with total time of 19 hours 20 minutes
Total time in space: 20 days 1 hour 18 minutes

NOWAK, Lisa M., Captain, U.S. Navy (former)
Born May 10, 1963 in Washington DC; Hometown: Rockville, Maryland.
Bachelor of Science in aerospace engineering from the U.S. Naval Academy
Master of Science in aeronautical engineering from the U.S. Naval Postgraduate School
Flew STS-121 on Discovery in 2006
Total time in space: 12 days 18 hours 36 minutes

O'CONNOR, Bryan D., Colonel, U.S. Marine Corps (Retired)
Born September 6, 1946 in Orange, California; Hometown: Twentynine Palms, California.
Bachelor of Science in engineering from U.S. Naval Academy
Master of Science in aeronautical systems from West Florida University
Graduated Naval Safety School from the Naval Postgraduate School
Flew STS-61-B on Atlantis in 1985
Flew STS-40 on Columbia in 1991
Total time in space: 15 days 23 hours 18 minutes

OEFELIN, William A., Commander, U.S. Navy (former)
Born March 29, 1965 in Ft. Belvoir, Virginia; Hometown: Anchorage, Alaska.
Bachelor of Science in electrical engineering from the Oregon State University
Master of Science in aviation systems from the University of Tennessee Space Institute
Flew STS-116 on Discovery in 2006
Total time in space: 12 days 20 hours 45 minutes

OLIVAS, John D., Civilian
Born May 25, 1966 in North Hollywood, California; Hometown: El Paso, Texas.
Bachelor of Science in mechanical engineering from the University of Texas-El Paso
Master of Science in mechanical engineering from the University of Houston
Doctor of Philosophy in mechanical engineering & materials science from Rice University
Flew STS-117 on Atlantis in 2007
Flew STS-128 on Discovery in 2009
5 EVAs with total time of 34 hours 28 minutes
Total time in space: 27 days 17 hours 5 minutes

OSWALD, Stephen S., Civilian
Born June 30, 1951 in Seattle, Washington; Hometown: Bellingham, Washington.
Bachelor of Science in aerospace engineering from the U.S. Naval Academy
Flew STS-42 on Discovery in 1992
Flew STS-56 on Discovery in 1993
Flew STS-67 on Endeavour in 1995
Total time in space: 33 days 22 hours 30 minutes

PAILES, William A., Colonel, U.S. Air Force (Retired)
Payload Specialist
Born June 26, Hackensack, New Jersey; Hometown: Kinnelon, New Jersey.
Bachelor of Science in computer science, the U. S. Air Force Academy

Master of Science in computer science from Texas A&M University
Flew STS-51J on Atlantis in 1985
Total time in space: 4 days, 1 hour, 45 minutes

PARAZYNSKI, Scott E., (M.D.) Civilian
Born July 28, 1961 in Little Rock, Arkansas; Hometowns: Palo Alto, California and
Evergreen, Colorado
Bachelor of Science in biology from Stanford University
Doctor of Medicine from Stanford University
Flew STS-66 on Atlantis in 1994
Flew STS-86 on Atlantis in 1997
Flew STS-95 on Discovery in 1998
Flew STS-100 on Endeavour in 2001
Flew STS-120 on Discovery in 2007
7 EVAs with total time of 47 hours 5 minutes
Total time in space: 58 days 12 hours 16 minutes

PARKER, Robert A. R., Civilian
Born December 14, 1936 in New York, New York
Bachelor of Arts in astronomy and physics from Amherst College
Doctor of Philosophy in astronomy from the California Institute of Technology
Flew STS-9 on Columbia in 1983
Flew STS-35 on Columbia in 1990
Total time in space: 19 days 6 hours 52 minutes

PATRICK, Nicholas J.M., Civilian
Born March 22, 1964 in Saltburn, North Yorkshire, United Kingdom
Hometowns: London, England and Rye, New York
Bachelor of Arts in engineering from the University of Cambridge, England
Master of Arts in engineering from the University of Cambridge, England
Master of Science in mechanical engineering from MIT
Doctor of Philosophy in mechanical engineering from MIT
Flew STS-116 on Discovery in 2006
Flew STS-130 on Endeavour in 2010
3 EVAs for total time of 18 hours 14 minutes
Total time in space: 26 days 14 hours 50 minutes

PAWELCZYK, James A., Civilian
Payload Specialist
Born Sept. 20, 1960 in Buffalo, New York; Hometown: Elma, New York.
Bachelor of Arts in biology and psychology from University of Rochester
Master of Science in physiology from the Pennsylvania State University
Doctor of Philosophy in biology from the University of North Texas
Flew on STS-90 on Columbia in 1998
Total time in space: 15 days 21 hours 51 minutes

PAYTON, Gary E., Major, U.S. Air Force
Born June 20, 1948
Bachelor of Science in astronautical engineering the U. S. Air Force Academy
Master of Science in astronautical and aeronautical engineering from Purdue University
Flew on STS-51C on Discovery in 1985
Total time in space: 3 days 1 hour 33 minutes

PETERSON, Donald H., Colonel, U.S. Air Force (Retired)

Born October 22, 1933 in Winona, Mississippi
Bachelor of Science from U.S. Military Academy
Master of Science in nuclear engineering from the U.S. Air Force Institute of Technology
Flew STS-6 on Challenger in 1983
1 EVA with total time of 4 hours 15 minutes
Total time in space: 5 days 23 minutes

PHILLIPS, John L., Captain, U.S. Naval Reserves (Retired)

Born April 15, 1951 in Fort Belvoir, Virginia; Hometown: Scottsdale, Arizona.
Bachelor of Science in mathematics from the U.S. Naval Academy
Bachelor of Science in Russian from the U.S. Naval Academy
Master of Science in aeronautical systems from the University of West Florida
Master of Science in geophysics and space physics from the University of California-Los Angeles
Doctorate in geophysics and space physics from the University of California-Los Angeles
Flew STS-100 on Endeavour in 2001
Flew Expedition 11 on Soyuz in 2005
Flew STS-119 on Discovery in 2009
1 EVA with total time of 4 hours 58 minutes
Total time in space: 203 days 8 hours 46 minutes

POGUE, William, Colonel, U.S. Air Force (Retired)

Born January 23, 1930 in Okemah, Oklahoma
Bachelor of Science in education from Oklahoma Baptist University
Master of Science in mathematics from Oklahoma State University
Flew Skylab 4 in 1974
2 EVAs with total time of 13 hours 31 minutes
Total time in space: 84 days 1 hour 15 minutes

POLANSKY, Mark L., Civilian

Born June 2, 1956 in Paterson, New Jersey; Hometown: Edison, New Jersey.
Bachelor of Science and Master of Science in aeronautical & astronautical engineering from Purdue University
Flew STS-98 on Atlantis in 2000
Flew STS-116 on Discovery in 2006
Flew STS-127 on Endeavour in 2009
Total time in space: 41 days 10 hours 50 minutes

PRECOURT, Charles J., Colonel, U.S. Air Force (Retired)

Born June 29, 1955 in Waltham, Massachusetts; Hometown: Hudson, Massachusetts.
Bachelor of Science in aeronautical engineering from the U.S. Air Force Academy
Master of Science in engineering management from Golden Gate University
Master of Arts in national security affairs & strategic studies from the U.S. Naval War College
Flew STS-55 on Columbia in 1993
Flew STS-71 on Atlantis in 1995
Flew STS-84 on Atlantis in 1997
Flew STS-91 on Discovery in 1998
Total time in space: 39 days 14 hours 16 minutes

READDY, William F., Captain, U.S. Navy (Retired)

Born January 24, 1952 in Quonset Point, Rhode Island; Hometown: McLean, Virginia.
 Bachelor of Science in aerospace engineering from the U.S. Naval Academy
 Flew STS-42 on Discovery in 1992
 Flew STS-51 on Discovery in 1993
 Flew STS-79 on Atlantis in 1996
 Total time in space: 28 days 0 hours 44 minutes

REIGHTLER, Kenneth S., Jr., Captain, U.S. Navy (Retired)

Born March 24, 1951 in Patuxent River, Maryland; Hometown: Virginia Beach, Virginia.
 Bachelor of Science in aerospace engineering from the U.S. Naval Academy
 Master of Science in aeronautical engineering from the U.S. Naval Postgraduate School
 Master of Science in systems management from the University of Southern California
 Flew STS-48 on Discovery in 1991
 Flew STS-60 on Discovery in 1994
 Total time in space: 13 days 15 hours 36 minutes

REILLY, James F., Civilian,

Born March 18, 1954 at Mountain Home AFB, Idaho; Hometown: Mesquite, Texas.
 Bachelor of Science in geosciences from the University of Texas-Dallas
 Master of Science in geosciences from the University of Texas-Dallas
 Doctor of Philosophy in geosciences from the University of Texas-Dallas
 Flew STS-89 on Endeavour in 1998
 Flew STS-104 on Atlantis in 2001
 Flew STS-117 on Atlantis in 2007
 5 EVAs with a total time of 31 hours 10 minutes
 Total time in space: 35 days 14 hours 34 minutes

REISMAN, Garrett E., Civilian

Born February 10, 1968 in Morristown, New Jersey; Hometown: Parsippany, New Jersey.
 Bachelor of Science in economics from the University of Pennsylvania
 Bachelor of Science in mechanical engineering from the University of Pennsylvania
 Master of Science in mechanical engineering from the California Institute of Technology
 Doctor of Philosophy in mechanical engineering from the California Institute of Technology
 Flew Expedition 16/17: STS-123 Endeavour (up) and STS-124 Discovery (down) in 2008
 Flew STS-132 on Atlantis in 2010
 3 EVAs with total time of 21 hours 12 minutes
 Total time in space: 107 days 3 hours 15 minutes

RICHARDS, Richard N., Captain, U.S. Navy (Retired)

Born August 24, 1946 in Key West, Florida; Hometown: St. Louis, Missouri.
 Bachelor of Science in chemical engineering from the University of Missouri
 Master of Science in aeronautical systems from the University of West Florida
 Flew STS-28 on Columbia in 1989
 Flew STS-41 on Discovery in 1990
 Flew STS-50 on Columbia in 1992
 Flew STS-64 on Discovery in 1994
 Total time in space: 33 days 21 hours 29 minutes

ROBINSON, Stephen K., Civilian

Born October 26, 1955 in Sacramento, California

Bachelor of Science in mechanical/aeronautical engineering from the University of California – Davis

Master of Science in mechanical engineering from Stanford University

Doctor of Philosophy in mechanical engineering (minor in aeronautics and astronautics) from Stanford University

Flew STS-85 on Discovery in 1997

Flew STS-95 on Discovery in 1998

Flew STS-114 on Discovery in 2005

Flew STS-130 on Endeavour in 2010

3 EVAS with total time of 20 hours 5 minutes

Total time in space: 48 days 9 hours 50 minutes

ROMINGER, Kent V., Captain, U.S. Navy (Retired)

Born August 7, 1956 in Del Norte, Colorado

Bachelor of Science in civil engineering from Colorado State University

Master of Science in aeronautical engineering from the U.S. Naval Postgraduate School

Flew STS-73 on Columbia in 1995

Flew STS-80 on Columbia in 1996

Flew STS-85 on Discovery in 1997

Flew STS-96 on Discovery in 1999

Flew STS-100 on Endeavour in 1991

Total time in space: 67 days 2 hours 58 minutes

ROSS, Jerry L., Colonel, U.S. Air Force (Retired)

Born January 20, 1948 in Crown Point, Indiana

Bachelor of Science in mechanical engineering from Purdue University

Master of Science in mechanical engineering from Purdue University

Flew STS-61-B on Atlantis in 1985

Flew STS-27 on Atlantis in 1988

Flew STS-37 on Atlantis in 1991

Flew STS-55 on Columbia in 1993

Flew STS-74 on Atlantis in 1995

Flew STS-88 on Endeavour in 1998

Flew STS-110 on Atlantis in 2002

9 EVAs with total time of 58 hours 18 minutes

Total time in space: 58 days 59 minutes 36 seconds

SACCO, Albert, Jr., Civilian

Payload Specialist

Born May 3, 1949 in Boston, Massachusetts

Bachelor of Science in chemical engineering Northeastern University

Doctor of Philosophy in chemical engineering from MIT

Flew on STS-73 on Columbia in 1995

Time in space: 15 days 21 hours 52 minutes

SATCHER, Robert L., Jr., Civilian

Born September 22, 1965 in Hampton, Virginia

Bachelor of Science in chemical engineering from MIT

Doctorate in chemical engineering from MIT

Doctor in medicine from Harvard University
Flew STS-129 on Atlantis in 2009
2 EVAs with total time of 12 hours 19 minutes
Total time in space: 10 days 19 hours 16 minutes

SCHMITT, Harrison H., Civilian

Born July 3, 1935 in Santa Rita, New Mexico
Bachelor of Science in geology from the California Institute of Technology
Doctor of Philosophy in geology from Harvard University
Flew Apollo 17 in 1972
3 EVAs with total time of 22 hours 4 minutes
Total time in space: 12 days 13 hours 51 minutes

SCHWEICKART, Russell L., Civilian

Born on October 25, 1935 in Neptune, New Jersey
Bachelor of Science and Master of Science in aeronautics & astronautics from MIT
Flew Apollo 9 in 1969
1 EVA with total time of 46 minutes
Total time in space: 10 days 1 hour

SCOTT, David R., Colonel, U.S. Air Force (Retired)

Born June 6, 1932 in San Antonio, Texas
Bachelor of Science from the U.S. Military Academy
Master of Science in aeronautics & astronautics from MIT
Flew Gemini 8 in 1966
Flew Apollo 9 in 1969
Flew Apollo 15 in 1971
4 EVAs with total time of 19 hours 35 minutes
Total time in space: 22 days 18 hours 54 minutes

SCOTT, Winston E., Captain, U.S. Navy (Retired)

Born August 6, 1950 in Miami, Florida
Bachelor of Arts in music from Florida State University
Master of Science in aeronautical engineering from U.S. Naval Postgraduate School
Flew STS-72 on Endeavour in 1996
Flew STS-87 on Columbia in 1997
3 EVAs with total time of 19 hours 36 minutes
Total time in space: 24 days 14 hours 34 minutes

SCULLY- POWER, Paul D., Civilian

Payload Specialist
Born May 28 1944 in Sydney Australia
Bachelor of Science in applied mathematics from the University of Sydney
Flew on 41G on Challenger in 1984
Total time in space: 8 days, 5 hours, 23 minutes

SEARFOSS, Richard A., Colonel, U.S. Air Force (Retired)

Born June 5, 1956 in Mount Clemens, Michigan Hometown: Portsmouth, New Hampshire
Bachelor of Science in aeronautical engineering from the U.S. Air Force Academy
Master of Science in aeronautics from the California Institute of Technology
Flew STS-58 on Columbia in 1993

Flew STS-76 on Atlantis in 1996
 Flew STS-90 on Columbia in 1998
 Total time in space: 39 days 3 hours 19 minutes

SEDDON, Margaret Rhea, Civilian
 Born November 8, 1947 in Murfreesboro, Tennessee
 Bachelor of Arts in physiology from the University of California-Berkeley
 Doctor of Medicine from the University of Tennessee
 Flew STS-51-D on Discovery in 1985
 Flew STS-40 on Columbia in 1991
 Flew STS-58 on Columbia in 1993
 Total time in space: 30 days 2 hours 22 minutes

SEGA, Ronald M., Colonel, U.S. Air Force Reserves (Retired)
 Born December 4, 1952 in Cleveland, Ohio; Hometowns: Northfield, Ohio and
 Colorado Springs, Colorado
 Bachelor of Science in physics & math from the U.S. Air Force Academy
 Master of Science in physics from Ohio State University
 Doctor of Philosophy in electrical engineering from the University of Colorado
 Flew STS-60 on Discovery in 1994
 Flew STS-76 on Atlantis in 1996
 Total time in space: 17 days 12 hours 24 minutes

SHAW, Brewster H., Jr., Colonel, U.S. Air Force (Retired)
 Born May 16, 1945 in Cass City, Michigan
 Bachelor of Science in engineering mechanics from the University of Wisconsin
 Master of Science in engineering mechanics from the University of Wisconsin
 Flew STS-9 on Columbia in 1983
 Flew STS-61-B on Atlantis in 1985
 Flew STS-28 on Columbia in 1989
 Total time in space: 22 days 5 hours 52 minutes

SHEPHERD, William M., Captain, U.S. Navy (Retired)
 Born July 26, 1949 in Oak Ridge, Tennessee; Hometown: Babylon, New York.
 Bachelor of Science in aerospace engineering from the U.S. Naval Academy
 Master of Science in mechanical engineering from MIT
 Flew STS-27 on Atlantis in 1988
 Flew STS-41 on Discovery in 1990
 Flew STS-52 on Columbia in 1992
 Flew Expedition 1: Soyuz (up) in 2000 and STS-102 – Discovery (down) in 2001
 Total time in space: 159 days 7 hours 49 minutes

SHRIVER, Loren J., Colonel, U.S. Air Force (Retired)
 Born September 23, 1944 in Jefferson, Iowa
 Bachelor of Science in aeronautical engineering from the U.S. Air Force Academy
 Master of Science in aeronautical engineering from Purdue University
 Flew STS-51-C on Discovery in 1985
 Flew STS-31 on Discovery in 1990
 Flew STS-46 on Atlantis in 1992
 Total time in space: 16 days 2 hours 4 minutes

SPRING, Sherwood C., Colonel, U.S. Army (Retired)

Born September 3, 1944 in Hartford, Connecticut
 Bachelor of Science in general engineering from the U.S Military Academy
 Master of Science in aerospace engineering from the University of Arizona
 Flew STS-61-B on Atlantis in 1985
 2 EVAs with total time of 12 hours 14 minutes
 Total time in space: 6 days 21 hours 4 minutes

SPRINGER, Robert C., Colonel, U. S. Marine Corps (Retired)

Born May 21 1942 in St. Louis, Missouri; Hometown: Ashland, Ohio.
 Bachelor of Science in naval science from the U.S. Naval Academy
 Master of Science in operations research & systems analysis from the U.S. Naval
 Postgraduate School
 Flew STS-29 on Discovery in 1989
 Flew STS-38 on Atlantis in 1990
 Total time in space: 9 days 21 hours 32 minutes

STAFFORD, Thomas P., Lt. General, U.S. Air Force (Retired)

Born September 17, 1930 in Weatherford, Oklahoma
 Bachelor of Science from the U.S. Naval Academy
 Flew Gemini 6 in 1965
 Flew Gemini 9 in 1966
 Flew Apollo 10 in 1969
 Flew Apollo Soyuz Test Project in 1975
 Total time in space: 21 days 3 hours 43 minutes

STEFANYSHYN-PIPER, Heidemarie M., Captain, U.S. Navy

Born February 7, 1963 in St. Paul, Minnesota
 Bachelor of Science in mechanical engineering from MIT
 Flew STS-115 on Atlantis in 2006
 Flew STS-126 on Endeavour in 2008
 5 EVAs with total time of 33 hours 42 minutes
 Total time in space: 27 days 15 hours 36 minutes

STEWART, Robert L., Brig. General, U.S. Army (Retired)

Born August 13, 1942 in Washington, DC
 Bachelor of Science in mathematics from the University of Southern Mississippi
 Master of Science in aerospace engineering from the University of Texas-Arlington
 Flew STS-41-B on Challenger in 1984
 Flew STS-51-J on Atlantis in 1985
 2 EVAs with total time 12 hours 12 minutes
 Total time in space: 12 days 1 hour

STURCKOW, Frederick W., Colonel, U.S. Marine Corps (Retired)

Born August 11, 1961 in La Mesa, California; Hometown: Lakeside, California.
 Bachelor of Science in mechanical engineering from California Polytechnic State University
 Flew STS-88 on Endeavour in 1998
 Flew STS-105 on Discovery in 2001
 Flew STS-117 on Atlantis in 2007
 Flew STS-128 on Discovery in 2009
 Total time in space: 51 days 9 hours 36 minutes

SULLIVAN, Kathryn D., Civilian

Born October 3, 1951 in Patterson, New Jersey; Hometown: Woodland Hills, California.
 Bachelor of Science in earth sciences from the University of California-Santa Cruz
 Master of Science in earth sciences from the University of California-Santa Cruz
 Doctor of Philosophy in geology from Dalhousie University, Halifax, Nova Scotia
 Flew STS-41-G on Challenger in 1984
 Flew STS-31 on Discovery in 1990
 Flew STS-45 on Atlantis in 1992
 1 EVA with total time of 3 hours 29 minutes
 Total time in space: 22 days 4 hours 49 minutes

TANI, Daniel M., Civilian

Born February 1, 1961 in Ridley Park, Pennsylvania; Hometown: Lombard, Illinois.
 Bachelor of Science in mechanical engineering from MIT
 Master of Science in mechanical engineering from MIT
 Flew STS-108 on Endeavour in 2001
 Flew Expedition 16: STS-120 Discovery (up) and STS-122 Atlantis (down) in 2008
 6 EVAs with total time of 39 hours 11 minutes
 Total time in space: 131 days 18 hours 5 minutes

TANNER, Joseph R., Civilian

Born January 21, 1950 in Danville, Illinois
 Bachelor of Science in mechanical engineering from the University of Illinois
 Flew STS-66 on Atlantis in 1994
 Flew STS-82 on Discovery in 1997
 Flew STS-97 on Endeavour in 2000
 Flew STS-115 on Discovery in 2001
 7 EVAs with total time of 46 hours 29 minutes
 Total time in space: 43 days 13 hours 15 minutes

THAGARD, Norman E., Civilian

Born July 3, 1943 in Marianna, Florida; Hometown: Jacksonville, Florida.
 Bachelor of Science in engineering science from the Florida State University
 Master of Science in engineering science from the Florida State University
 Doctor of Medicine from the University of Texas Southwestern Medical School
 Flew STS-7 on Challenger in 1983
 Flew STS-51-B on Challenger in 1985
 Flew STS-30 on Atlantis in 1989
 Flew STS-42 on Discovery in 1992
 Flew Mir: Soyuz (up) and STS-71 on Atlantis (down) in 1995
 Total time in space: 140 days 13 hours 24 minutes

THOMAS, Donald A., Civilian

Born May 6, 1955 in Cleveland, Ohio
 Bachelor of Science in physics from Case Western Reserve University
 Master of Science in materials science from Cornell University
 Doctor of Philosophy in materials science from Cornell University
 Flew STS-65 on Columbia in 1994
 Flew STS-70 on Discovery in 1995
 Flew STS-83 on Columbia in 1997
 Flew STS-94 on Columbia in 1997
 Total time in space: 43 days 8 hours 13 minutes

THORNTON, Kathryn C., Civilian

Born August, 17, 1952 in Montgomery, Alabama
 Bachelor of Science in physics from Auburn University
 Master of Science in physics from the University of Virginia
 Doctor of Philosophy in physics from the University of Virginia
 Flew STS-33 on Discovery in 1989
 Flew STS-49 on Endeavour in 1992
 Flew STS-61 on Endeavour in 1993
 Flew STS-73 on Columbia in 1995
 3 EVAs with total time of 21 hours 11 minutes
 Total time in space: 40 days 15 hours 15 minutes

THORNTON, William E., Civilian

Born April 14, 1929 in Faison, North Carolina
 Bachelor of Science in physics from the University of North Carolina
 Doctor of Medicine from the University of North Carolina
 Flew STS-8 on Challenger in 1983
 Flew STS-51-B on Challenger in 1985
 Total time in space: 13 days 2 hour 47 minutes

THUOT, Pierre J., Commander, U.S. Navy

Born May 19, 1955 in Groton, Connecticut; Hometowns: Fairfax, Virginia & New Bedford, Massachusetts
 Bachelor of Science in physics from the U.S. Naval Academy
 Masters of Science in system management from the University of Southern California
 Flew STS-36 on Atlantis in 1990
 Flew STS-49 on Endeavour in 1992
 Flew STS-62 on Columbia in 1994
 3 EVAs with total time of 17 hours 38 minutes
 Total time in space: 27 days 6 hours 51 minutes

TRINH, Eugene H., Civilian

Payload Specialist
 Born Sept. 14, 1950 in Saigon, Vietnam.
 Bachelor of Science in mechanical engineering-applied physics from Columbia University
 Masters of Science and of Philosophy in applied physics from Yale University
 Doctorate of Philosophy in Applied Physics from Yale University
 Flew STS-50 on Columbia in 1992
 Total time in space: 13 days 19 hours 30 minutes

TRULY, Richard H., Vice Admiral, U.S. Navy (Retired)

Born November 12, 1937 in Fayette, Mississippi
 Bachelor of aeronautical engineering from the Georgia Institute of Technology
 Flew ALT tests 2 and 4
 Flew STS-2 on Columbia in 1981
 Flew STS-8 on Challenger in 1983
 Total time in space: 8 days 7 hours 21 minutes

VAN DEN BERG, Lodewijk, Civilian

Payload Specialist
 Born March 24, 1932 in Sluiskil, The Netherlands

Master of Science in chemical engineering Technical University, Delft, The Netherlands
Master of Science in applied science from the University of Delaware
Doctor of Philosophy applied science from the University of Delaware
Flew on STS-51B on Challenger in 1985
Time in space: 7 days 8 minutes

VAN HOFTEN, James D., Civilian

Born June 11, 1944 in Fresno, California; Hometown: Burlington, California.
Bachelor of Science in civil engineering from the University of California-Berkeley
Master of Science in hydraulic engineering from Colorado State University
Doctor of Philosophy in fluid mechanics from Colorado State University
Flew STS-41-C on Challenger in 1984
Flew STS-51-L on Discovery in 1985
4 EVAs with a total time of 21 hours 51 minutes
Total time in space: 14 days 2 hour 57 minutes

VOSS, James S., Colonel, U.S. Army (Retired)

Born March 3, 1949 in Cordova, Alabama; Hometown: Opelika, Alabama.
Bachelor of Science in aerospace engineering from Auburn University
Master of Science in aerospace engineering sciences from the University of Colorado
Flew STS-44 on Atlantis in 1991
Flew STS-53 on Discovery in 1992
Flew STS-69 on Endeavour in 1995
Flew STS-101 on Atlantis in 2000
Flew Expedition 2 - STS-102 Discovery (up) in 2001 (March)
STS-105 Discovery (down) in 2001 (August)
4 EVAs with a total time of 22 hours 35 minutes
Total time in space: 202 days 5 hours 28 minutes

WALKER, Charles D, Civilian

Payload Specialist
Born Aug. 29, 1948
Bachelor of Science in aeronautical and astronautical engineering Purdue University
Flew on STS-41D on Discovery in 1984
Flew on STS-51D on Discovery in 1985
Flew on STS-61B on Atlantis in 1985
Total time in space: 19 days 21 hours 56 minutes

WALZ, Carl E., Colonel, U.S. Air Force

Born September 6, 1955 in Cleveland, Ohio
Bachelor of Science in physics from Kent State University
Master of Science in solid-state physics from John Carroll University
Flew STS-51 on Discovery in 1993
Flew STS-65 on Columbia in 1994
Flew STS-79 on Atlantis in 1996
Flew Expedition 4: STS-108 Endeavour (up) and STS-111 Endeavour (down) in 2002
3 EVAs with total time of 18 hours 55 minutes
Total time in space : 230 days 13 hours 4 minutes

WANG, Taylor G., Civilian

Payload Specialist

Born June 16, 1940 in Mainland China

Bachelor of Science in physics from the University of California at Los Angeles

Master of Science in physics from the University of California at Los Angeles

Doctorate of Philosophy in physics from the University of California at Los Angeles

Flew STS-51B on Challenger in 1985

Total time in space: 7 days 8 minutes

WEBER, Mary E., Civilian

Born August 24 1962 in Cleveland, Ohio; Hometown: Bedford Heights, Ohio.

Bachelor of Science in chemical engineering from Purdue University

Doctor on Philosophy in physical chemistry from the University of California-Berkeley

Flew STS-70 on Discovery in 1995

Flew STS-101 on Atlantis in 2000

Total time in space: 18 days 18 hours 30 minutes

WEITZ, Paul J., Captain, U.S. Navy (Retired)

Born July 25, 1932 in Erie, Pennsylvania

Bachelor of Science in aeronautical engineering from Pennsylvania State University

Master of Science in aeronautical engineering from U.S. Naval Postgraduate School

Flew Skylab 2 in 1973

Flew STS-6 on Challenger in 1983

1 EVA with total time of 2 hour 11 minutes

Total time in space: 33 days 1 hour 13 minutes

WETHERBEE, James D., Captain, U.S. Navy (Retired)

Born November 27, 1952 in Flushing, New York; Hometown: Huntington Station, New York.

Bachelor of Science in aerospace engineering from the University of Notre Dame

Flew STS-32 on Columbia in 1990

Flew STS-52 on Columbia in 1992

Flew STS-63 on Discovery in 1995

Flew STS-86 on Atlantis in 1997

Flew STS-102 on Discovery in 2001

Flew STS-113 on Endeavour in 2002

Total time in space: 66 days 10 hours 23 minutes

WILLIAMS, Donald E., Captain, U.S. Navy (Retired)

Born February 13, 1958 in Lafayette, Indiana

Bachelor of Science in mechanical engineering from Purdue University

Flew STS-51-D on Discovery in 1985

Flew STS-34 on Atlantis in 1989

Total time in space: 11 days 23 hours 34 minutes

WISOFF, Peter J. K., Civilian

Born August 16, 1958 in Norfolk, Virginia

Bachelor of Science in physics from the University of Virginia

Master of Science and Doctor of Philosophy in applied physics from Stanford University

Flew STS-57 on Endeavour in 1993

Flew STS-68 on Endeavour in 1994

Flew STS-81 on Atlantis in 1997

Flew STS-92 on Discovery in 2000
 3 EVAs with total time of 19 hours 53 minutes
 Total time in space: 44 days 8 hours 9 minutes

WOLF, David A., Civilian

Born August 23, 1956 in Indianapolis, Indiana
 Bachelor of Science in electrical engineering from Purdue University
 Doctor of Medicine from Indiana University
 Flew STS-58 on Columbia in 1993
 Flew Mir: STS-86 on Atlantis (up) and STS-89 on Endeavour (down) in 1998
 Flew STS-112 on Atlantis 2002
 Flew STS-127 on Endeavour in 2009
 7 EVAs with total time of 41 hours 05 minutes
 Total time in space: 168 days 12 hours 56 minutes

WOODWARD, Neil W., III, Commander, U.S. Navy

Born July 26, 1962 in Chicago, Illinois
 Bachelor of Science in physics from MIT
 Master of Arts in physics from the University of Texas-Austin
 Master of management from George Washington University – Washington DC
 Total time in space: 0 (un-flown)

WORDEN, Alfred M., Colonel, U.S. Air Force (Retired)

Born February 7, 1932 in Jackson, Michigan
 Bachelor of Science in military science from the U.S. Military Academy
 Master of Science in aeronautical & aeronautical engineering & instrumentation
 engineering from University of Michigan
 Flew Apollo 15 in 1971
 1 EVA with total time of 38 minutes
 Total time in space: 12 days 7 hours 12 minutes

YOUNG, John W., Captain, U.S. Navy (Retired)

Born September 24, 1930 in San Francisco, California
 Bachelor of Science in aeronautical engineering from the Georgia Institute of Technology
 Flew Gemini 3 in 1965
 Flew Gemini 10 in 1966
 Flew Apollo 10 in 1969
 Flew Apollo 16 in 1972
 Flew STS-1 on Columbia in 1981
 Flew STS-9 on Columbia in 1983
 3 EVAs with total time of 20 hours 15 minutes
 Total time in space: 34 days 19 hours 39 minutes

ZAMKA, George D., Colonel, U.S. Marine Corps (Retired)

Born June 29, 1962 in Jersey City, New Jersey; Hometown: Rochester, Michigan.
 Bachelor of Science in mathematics from U.S. Naval Academy
 Master of Science in engineering management from Florida Institute of Technology
 Flew STS-120 on Discovery in 2007
 Flew STS-130 on Endeavour in 2010
 Total time in space: 28 days 20 hours 29 minutes

4.4 DECEASED U.S. ASTRONAUTS

ANDERSON, Michael P., Lt. Colonel, U.S. Air Force

Born December 25, 1959 in Plattsburgh, New York; Hometown: Spokane, Washington
 Bachelor of Science in physics/astronomy from University of Washington
 Master of Science in physics from Creighton University
 Flew STS-89 on Endeavour in 1998
 Flew STS-107 on Columbia in 2003
 Total time in space: 24 days 18 hours 8 minutes
 DIED: February 1, 2003 in the STS-107 accident over Texas

ARMSTRONG, Neil A., Civilian

Born August 5, 1930 in Wapakoneta, Ohio
 Bachelor of Science in aeronautical engineering from Purdue University
 Master of Science in aerospace engineering from University of Southern California
 Flew Gemini 8 in 1966
 Flew Apollo 11 in 1969
 1 EVA with total time of 2 hours 31 minutes
 Total time in space: 8 days 13 hours 59 minutes
 DIED: August 25, 2012

BASSETT II, Charles A., Captain, U.S. Air Force

Born December 30, 1931 in Dayton, Ohio
 Bachelor of Science in electrical engineering from Texas Technological College
 Total time in space: 0 (un-flown)
 DIED: February 28, 1966 in a T-38 jet crash in St. Louis, Missouri

BRADY, Charles E., Jr., Captain, U. S. Navy

Born August 12, 1951 in Pinehurst, North Carolina; Hometown: Robbins, North Carolina.
 Doctor of Medicine from Duke University
 Flew STS-78 on Columbia in 1996
 Total time in space: 16 days 21 hours 48 minutes
 DIED: July 23, 2006 at his home in Washington State.

BROWN, David M., Captain, U.S. Navy

Born April 16, 1956 in Arlington, Virginia
 Bachelor of Science in biology from College of William & Mary
 Doctor of Medicine from Eastern Virginia Medical School
 Flew STS-107 on Columbia in 2003
 Total time in space: 15 days 22 hours 20 minutes
 DIED: February 1, 2003 in the STS-107 accident over Texas

BULL, John S., Civilian

Born September 25, 1934 in Memphis, Tennessee
 Bachelor of Science in mechanical engineering from Rice University
 Master of Science in aeronautical engineering from Stanford University
 Doctor in aeronautical engineering from Stanford University
 Total time in space: 0 (un-flown)
 DIED: August 11, 2008 following complications related to long-term asthma.

CALDEIRO, Fernando, Civilian

Born June 12, 1958 in Buenos Aires, Argentina; Hometown: New York City
and Merritt Island, Florida

Bachelor of Science in mechanical engineering from University of Arizona

Master of Science in engineering management from University of Central Florida

Total time in space: 0 (un-flown)

DIED: October 3, 2009 from brain tumor

CARTER, Manley Lanier, Jr., "Sonny", Captain, U.S. Navy

Born August 15, 1947 in Macon, Georgia

Bachelor of Arts in chemistry from Emory University

Doctor of Medicine from Emory University

Flew STS-33 On Discovery in 1989

Total time in space: 5 days 0 hours 7 minutes

DIED: April 5, 1991 in a commercial air-line crash while on NASA business
travel near New Brunswick, Georgia

CHAFFEE, Roger B., Lt. Commander, U.S. Navy

Born February 15, 1935 in Grand Rapids, Michigan

Bachelor of Science in aeronautical engineering from Purdue University

Total time in space: 0 (un-flown)

DIED: January 27, 1967 in the Apollo 1 spacecraft fire at KSC, Florida

CHAWLA, Kalpana, Civilian

Born July 1, 1961 in Karnal, India

Bachelor of Science in aeronautical engineering from Punjab Engineering College

Master of Science in aerospace engineering from University of Texas-Arlington

Doctor of Philosophy in aerospace engineering from University of Colorado

Flew STS-87 on Columbia in 1997

Flew STS-107 on Columbia in 2003

Total time in space: 30 days 14 hours 54 minutes

DIED: February 1, 2003 in the STS-107 accident over Texas

CLARK, Laurel B., Captain, U.S. Navy

Born March 10, 1961 in Ames, Iowa; Hometown: Racine, Wisconsin.

Bachelor of Science in Zoology from University of Wisconsin-Madison

Doctor of Medicine from University of Wisconsin-Madison

Flew STS-107 on Columbia in 2003

Total time in space: 15 days 22 hours 20 minutes

DIED: February 1, 2003 in the STS-107 accident over Texas

CONRAD, Charles, Jr., Captain, U.S. Navy (Retired)

Born June 2, 1930 in Philadelphia, Pennsylvania

Bachelor of Science in aeronautical engineering from Princeton University

Flew Gemini 5 in 1965

Flew Gemini 11 in 1966

Flew Apollo 12 in 1969

Flew Skylab 2 in 1973

4 EVA with total time of 12 hours 28 minutes

Total time in space: 49 days 3 hours 38 minutes

DIED: July 8, 1999 in a motorcycle accident in Ojai, California

COOPER, L. Gordon, Jr., Colonel, U.S. Air Force (Retired)

Born March 6, 1927 in Shawnee, Oklahoma
 Bachelor of Science in aeronautical engineering from Air Force Institute of Technology
 Honorary Doctorate of Science from Oklahoma City University
 Flew Mercury 9 in 1963
 Flew Gemini 5 in 1965
 Total time in space: 9 days 9 hours 15 minutes
 DIED: October 4, 2004 in Ventura California

EISELE, Donn F., Colonel, U.S. Air Force (Retired)

Born June 23, 1930 in Columbus, Ohio
 Bachelor of Science in astronautics from U.S. Naval Academy
 Master of Science in astronautics from U.S. Air Force Institute of Technology
 Flew Apollo 7 in 1968
 Total time in space: 10 days 20 hours 8 minutes
 DIED: December 2, 1987 of a heart attack in Tokyo, Japan

EVANS, Ronald E., Captain, U.S. Navy (Retired)

Born November 10, 1933 in St. Francis, Kansas
 Bachelor of Science in electrical engineering from University of Kansas
 Master of Science in aeronautical engineering from U.S. Naval Postgraduate School
 Flew Apollo 17 in 1972
 1 EVA with a total time of 1 hour 5 minutes
 Total time in space: 12 days 13 hours 52 minutes
 DIED: April 6, 1990 of a heart attack in Scottsdale, Arizona

FREEMAN, Theodore C., Captain, U.S. Air Force

Born February 18, 1930 in Haverford, Pennsylvania
 Bachelor of Science from U.S. Naval Academy
 Master of Science in aeronautical engineering from University of Michigan
 Total time in space: 0 (un-flown)
 DIED: October 31, 1964 in a T-38 jet crash at Ellington AFB in Houston

GIVENS, Edward G. Jr., Major, U.S. Air Force

Born January 5, 1930 in Quanah, Texas
 Bachelor of Science in naval sciences from U.S. Naval Academy
 Total time in space: 0 (un-flown)
 DIED: June 6, 1967 in an automobile accident near Houston, Texas

GRIGGS, S. David, Civilian

Born September 7, 1939 in Portland, Oregon
 Bachelor of Science from U.S. Naval Academy
 Master of Science in administration from George Washington University
 Flew STS-51-D on Discovery in 1985
 1 EVA with total time of 3 hours 6 minutes
 Total time in space: 6 days 23 hours 55 minutes
 DIED: June 17, 1989 in crash of WWII era training plane near Earle, Arkansas

GRISSOM, Virgil I., Lt. Colonel, U.S. Air Force

Born April 3, 1926 in Mitchell, Indiana

Bachelor of Science in mechanical engineering from Purdue University
Flew Mercury 4 in 1961
Flew Gemini 3 in 1965
Total time in space: 5 hours 08 minutes
DIED: January 27, 1967 in the Apollo 1 spacecraft fire at KSC, Florida

HENIZE, Karl G., Civilian

Born October 17, 1926 in Cincinnati, Ohio
Bachelor of Arts in mathematics from University of Virginia
Master of Arts in astronomy from University of Virginia
Doctor of Philosophy in astronomy from University of Michigan
Flew STS-51-F on Challenger in 1985
Total time in space: 7 days 22 hours 45 minutes
DIED: October 5, 1993 of respiratory & heart failure climbing Mt. Everest

HUSBAND, Rick D., Colonel, U.S. Air Force

Born July 12, 1957 in Amarillo, Texas
Bachelor of Science in mechanical engineering from Texas Tech University
Master of Science in mechanical engineering from California State University
Flew STS-96 on Discovery in 1999
Flew STS-107 on Columbia in 2003
Total time in space: 25 days 17 hours 33 minutes
DIED: February 1, 2003 in the STS-107 accident over Texas

IRWIN, James B., Colonel, U.S. Air Force (Retired)

Born March 17, 1930 in Pittsburgh, Pennsylvania
Bachelor of Science in naval science from U.S. Naval Academy
Master of Science in aeronautical engineering and instrumentation engineering from University of Michigan
Flew Apollo 15 in 1971
3 EVAs with total time of 19 hours 46 minutes
Total time in space: 12 days 7 hours 12 minutes
DIED: August 8, 1991 of a heart attack

JARVIS, Gregory, Civilian

Born Aug. 24, 1944 in Detroit
Bachelor of Science in electrical engineering from State University of New York at Buffalo
Masters in electrical engineering from Northeastern University
Flew on STS-51L on Challenger in 1986
DIED: Jan. 28, 1986 when Challenger exploded after launch

LENOIR, William B., Civilian

Born March 14, 1939 in Miami, Florida
Bachelor of Science in electrical engineering from MIT
Master of Science in electrical engineering from MIT
Doctor of Philosophy in electrical engineering from MIT
Flew STS-5 on Columbia in 1982
Total time in space: 5 days 2 hours 14 minutes
DIED: August 26 2012 from head injuries sustained during a bicycle accident.

LOUNGE, John M. "Mike", Civilian

Born June 28, 1946 in Denver Colorado
 Bachelor of Science in physics and mathematics from U.S. Naval Academy
 Master of Science in astrogeophysics from University of Colorado
 Flew STS-51-L on Discovery in 1985
 Flew STS-26 on Discovery in 1988
 Flew STS-35 on Columbia in 1990
 Total time in space: 20 days 3 hours 23 minutes
 DIED: March 1, 2011

LOW, G. David, Civilian

Born February 19, 1956 in Cleveland, Ohio
 Bachelor of Science in physics-engineering from Washington & Lee University
 Bachelor of Science in mechanical engineering from Cornell University
 Master of Science in aeronautics & astronautics from Stanford University
 Flew STS-32 on Columbia in 1990
 Flew STS-43 on Atlantis in 1991
 Flew STS-57 on Endeavour in 1993
 1 EVA with total time of 5 hours 50 minutes
 Total time in space: 29 days 18 hours 6 minutes
 DIED: March 15, 2008 in Reston, Virginia

McAuliffe, S. Christa, Civilian

Born Sept. 2, 1948 in Boston, Massachusetts
 Bachelor of Arts in education Framingham State College
 Master in education Bowie State College
 Flew on STS-51L
 DIED: Jan. 28, 1986 when Challenger exploded after launch

McCOOL, William C., Commander, U.S. Navy

Born September 23, 1961 in San Diego, California
 Bachelor of Science in applied science from U.S. Naval Academy
 Master of Science in computer science from University of Maryland
 Master of Science in aeronautical engineering from U.S. Naval Postgraduate School
 Flew STS-107 on Columbia in 2003
 Total time in space: 15 days 22 hours 20 minutes
 DIED: February 1, 2003 in the STS-107 accident over Texas

McNAIR, Ronald E., Civilian

Born October 21, 1950 in Lake City, South Carolina
 Bachelor of Science in physics from North Carolina A&T State College
 Doctor of Philosophy in physics from MIT
 Flew STS-41-B on Challenger
 Total time in space: 7 days 23 hours 15 minutes
 DIED: January 28, 1986 in the STS-51-L accident over Florida

O'LEARY, Brian T., Civilian

Born January 27, 1940 in Boston, Massachusetts
 Bachelor of Arts in physics from Williams College
 Master of Arts in astronomy from Georgetown University
 Doctor of Philosophy in astronomy from University of California-Berkeley

Total time in space: 0 (un-flown)
DIED: July 28, 2011

ONIZUKA, Ellison S., Lt. Colonel, U.S. Air Force
Born June 24, 1946 in Kealahou, Kona, Hawaii
Bachelor of Science in aerospace engineering from University of Colorado
Master of Science in aerospace engineering from University of Colorado
Flew STS-51-C on Discovery in 1985
Total time in space: 3 days 1 hour 33 minutes
DIED: January 28, 1986 in the STS-51-L accident over Florida

OVERMYER, Robert F., Colonel, U.S. Marine Corps (Retired)
Born July 14, 1936 in Lorain, Ohio
Bachelor of Science in physics from Baldwin Wallace College
Master of Science in aeronautics from U.S Naval Postgraduate School
Flew STS-5 on Columbia in 1982
Flew STS-51-B on Challenger in 1985
Total time in space: 12 days 2 hours 23 minutes
DIED: March 22, 1996 in crash of a light aircraft he was testing

PARISE, Ronald A., Civilian
Born May 24, 1951 in Warren, Ohio
Bachelor of Science in physics from Youngstown State University
Master of Science in astronomy from University of Florida
Doctor of Philosophy in astronomy from University of Florida
Flew STS-35 on Columbia in 1990
Flew on STS-67 on Endeavour in 1995
Total time in space: 25 days 14 hours 14 minutes

POINDEXTER, Alan G., Captain, U.S. Navy
Born November 5, 1961 in Pasadena, California; Hometown: Rockville, Maryland.
Bachelor of Science in aerospace engineering from Georgia Institute of Technology
Master of Science in aeronautical engineering from U.S. Naval Postgraduate School
Flew STS-122 on Atlantis in 2008
Flew STS-131 on Discovery in 2010
Total time in space: 27 days 21 hours 9 minutes
DIED: July 1, 2012 in jet ski accident in Florida

RESNIK, Judith A., Civilian
Born April 5, 1949 in Akron, Ohio
Bachelor of Science in electrical engineering from Carnegie-Mellon University
Doctor of Philosophy in electrical engineering from University of Maryland
Flew STS-41-D on Discovery in 1984
Total time in space: 6 days 0 hours 56 minute
DIED: January 28, 1986 in the STS-51-L accident over Florida

RIDE, Sally K., Civilian
Born May 26, 1951 in Los Angeles, California
Bachelor of Science in physics from Stanford University
Bachelor of Arts in English from Stanford University
Master of Science in physics from Stanford University

Doctor of Philosophy in physics from Stanford University
 Flew STS-7 on Challenger in 1983
 Flew STS-41-G on Challenger in 1984
 Total time in space: 14 days 7 hours 46 minutes
 DIED: July 2012 in California of pancreatic cancer

ROBERTSON, Patricia Hilliard, Civilian
 Born March 12, 1963 in Indiana, Pennsylvania; Hometown: Homer City, Pennsylvania.
 Bachelor of Science in biology from Indiana University of Pennsylvania
 Doctor of Medicine from Medical College of Pennsylvania
 Total time in space: 0 (un-flown)
 DIED: May 24, 2001 of injuries from the crash of a private plane at Wolfe Air Park in Manvel, Texas

ROOSA, Stuart A., Colonel, U.S. Air Force (Retired)
 Born August 16, 1933 in Durango, Colorado
 Bachelor of Science in aeronautical engineering from University of Colorado
 Flew Apollo 14 in 1971
 Total time in space: 9 days 42 minutes
 DIED: December 12, 1994 of complications of pancreatitis

SCHIRRA, Walter M., Captain, U.S. Navy (Retired)
 Born March 12, 1923 in Hackensack, New Jersey
 Bachelor of Science from U.S. Naval Academy
 Flew Mercury 8 in 1962
 Flew Gemini 6 in 1965
 Flew Apollo 7 in 1968
 Total time in space: 12 days 7 hours 12 minutes
 DIED: May 2, 2007 in San Diego, California

SCOBEE, Francis R., Major, U.S. Air Force (Retired)
 Born May 19, 1939 in Cle Elum, Washington
 Bachelor of Science in aerospace engineering from University of Arizona
 Flew STS-41-C on Challenger in 1984
 Total time in space: 6 days 23 hours 40 minutes
 DIED: January 28, 1986 in the STS-51-L accident over Florida

SEE, Elliot M., Jr., Civilian
 Born July 23, 1927 in Dallas Texas
 Bachelor of Science from U.S. Merchant Marine Academy
 Master of Science in engineering from University of California – Los Angeles
 Total time in space: 0 (un-flown)
 DIED: February 28, 1966 in crash of T-38 jet in St. Louis, Missouri

SHEPARD, Alan B. Jr., Rear Admiral, U.S. Navy (Retired)
 Born November 18, 1923 in East Derry, New Hampshire
 Bachelor of Science from U.S. Naval Academy
 Flew Mercury 3 in 1961
 Flew Apollo 14 in 1971
 2 EVAs with total time of 9 hours 17 minutes
 Total time in space: 9 days 57 minutes
 DIED: July 21, 1998 after a lengthy illness

SLAYTON, Donald K., Major, U.S. Air Force Reserve

Born March 1, 1924 in Sparta, Wisconsin

Bachelor of Science in aeronautical engineering from University of Minnesota

Flew Apollo-Soyuz Test Project (ASTP) in 1975

Total time in space: 9 days 1 hour 28 minutes

DIED: June 13, 1993 from complications of a brain tumor in League City, Texas

SMITH, Michael J., Captain, U.S. Navy

Born August 30, 1945 in Beaufort, North Carolina

Bachelor of Science in naval science from U.S. Naval Academy

Master of Science in aeronautical engineering from U.S. Naval Postgraduate School

Total time in space: 0 (un-flown)

DIED: January 28, 1986 in the STS-51-L accident over Florida

SWIGERT, John L., Jr., Civilian

Born August 30, 1931 in Denver, Colorado

Bachelor of Science in mechanical engineering from University of Colorado

Master of Science in aerospace science from Rensselaer Polytechnic Institute

Master of Business Administration from University of Hartford

Flew Apollo 13 in 1970

Total time in space: 5 days 22 hours 54 minutes

DIED: December 27, 1982 of cancer

THORNE, Stephen D., Lt. Commander, U.S. Navy

Born February 11, 1953 in Frankfurt-on-Main, West Germany

Bachelor of Science in engineering from U.S. Naval Academy

Total time in space: 0 (un-flown)

DIED: May 24, 1986 in airplane crash in Alta Loma, Texas

VEACH, Charles Lacy, Civilian

Born September 18, 1944 in Chicago, Illinois; Hometown: Honolulu, Hawaii.

Bachelor of Science in engineering management from U.S. Air Force Academy

Flew STS-39 on Discovery in 1991

Flew STS-52 on Columbia in 1992

Total time in space: 18 days 4 hours 18 minutes

DIED: October 3, 1995 of cancer in Houston, Texas

VOSS, Janice E., Civilian

Born October 8, 1956 in South Bend, Indiana

Bachelor of Science in engineering science from Purdue University

Master of Science in electrical engineering from MIT

Doctor in aeronautics/astronautics from MIT

Flew STS-57 on Endeavour in 1993

Flew STS-63 on Discovery in 1995

Flew STS-83 on Columbia in 1997

Flew STS-94 Columbia in 1997

Flew STS-99 on Endeavour in 2000

Total time in space: 49 days 3 hours 50 minutes

DIED: Feb. 6, 2012 of cancer in Houston, Texas

WALKER, David M., Captain, U.S. Navy (Retired)

Born May 20, 1944 in Columbus, Georgia; Hometown: Eustis, Florida.

Bachelor of Science from U.S. Naval Academy

Flew STS-51-A on Discovery in 1984

Flew STS-30 on Atlantis in 1989

Flew STS-53 on Discovery in 1992

Flew STS-69 on Endeavour in 1995

Total time in space: 30 days 4 hours 30 minutes

DIED: April 23, 2001 following a sudden and brief illness

WHITE, Edward H. II, Lt. Colonel, U.S. Air Force

Born November 14, 1930 in San Antonio, Texas

Bachelor of Science from U.S. Military Academy

Master of Science in aeronautical engineering from University of Michigan

Flew Gemini 4 in 1965

1 EVA with total time of 36 minutes

Total time in space: 4 days 1 hour 56 minutes

DIED: January 27, 1967 in the Apollo 1 spacecraft fire at KSC, Florida

WILLIAMS, Clifford C. Jr., Major, U.S. Marine Corps

Born September 26, 1932 in Mobile, Alabama

Bachelor of Science in mechanical engineering from Auburn University

Total time in space: 0 (un-flown)

DIED: October 5, 1967 in T-38 jet crash near Tallahassee, Florida

5.0 U.S. ASTRONAUT SELECTION BY GROUPS

Females

GROUP 1 - Mercury Astronauts, April 1959:

Carpenter/USN, Cooper/USAF, Glenn/USMC, Grissom/USAF,
Schirra/USN, A. Shepard/USN, Slayton/USAF Reserves (7)

GROUP 2 - Pilot Astronauts, September 1962:

Armstrong, Borman/USAF, Conrad/USN, Lovell/USN, McDivitt/USAF, See, Stafford/USAF,
White/USAF, Young/USN (9)

GROUP 3 - Pilot Astronauts, October 1963:

Aldrin/USAF, Anders/USAF, Bassett/USAF, Bean/USN, Cernan/USN, Chaffee/USN, M.
Collins/USAF, Cunningham/USMC Reserves, Eisele/USAF, Freeman/USAF, Gordon/USN,
Schweickart/ANG, D. Scott/USAF, C. Williams/USMC (14)

GROUP 4 - Scientist Astronauts, June 1965:

Garriott, E. Gibson, Graveline, Kerwin/USN, Michel, Schmitt (6)

GROUP 5 - Pilot Astronauts, April 1966:

Brand, Bull/USN, Carr/USMC, Duke/USAF, Engle/USAF, Evans/USN, Givens/USAF,
Haise, Irwin/USAF, Lind/USNR, Lousma/USMC, Mattingly/USN, McCandless/USN,
Mitchell/USN, Pogue/USAF, Roosa/USAF, Swigert, Weitz/USN, Worden/USAF (19)

Group 6 - Scientist Astronauts, August 1967:

J. Allen, Chapman, England, Heinze, Holmquest, Lenoir, Llewellyn, Musgrave, O'Leary,
Parker, W. Thornton (11)

GROUP 7 - Air Force Manned Orbiting Laboratory Astronauts, August 1969:

Bobko/USAF, Crippen/USN, Fullerton/USAF, Hartsfield/USAF, Overmyer/USMC,
Peterson/USAF, Truly/USN (7)

GROUP 8 - Pilots and Mission Specialists, January 1978:

Bluford/USAF, Brandenstein/USN, Buchli/USMC, Coats/USN, Covey/USAF,
Creighton/USN, Fabian/USAF, A. Fisher, D. Garner/USN, R. Gibson/USN,
F. Gregory/USAF, Griggs/USNR, Hart/ANG, Hauck/USN, Hawley, Hoffman, Lucid,
McBride/USN, McNair, Mullane/USAF, Nagel/USAF, Nelson, Onizuka/USAF, Resnik, Ride,
Scobee/USAF, Seddon, Shaw/USAF, Shriver/USAF, Stewart/USA, Sullivan, Thagard, van
Hofen/UNR, D. Walker/USN, D. Williams/USN (35)

GROUP 9 - Pilots and Mission Specialists, January 1980:

Bagian/USAFR, Blaha/USAF, Bolden/USMC, Bridges/USAF, Chang-Diaz, Cleave, Dunbar,
W. Fisher, G. Gardner/USAF, Grabe/USAF, Hilmers/USMC, Leestma/USN, Lounge,
O'Connor/USMC, R. Richards/USN, Ross/USAF, M. Smith/USN, Spring/USA,
Springer/USMC (19)

GROUP 10 - Pilots and Mission Specialists, May 1984:

Adamson/USA, E. Baker, M. Brown/USAF, Cameron/USMC, Carter/USN, Casper/USAF,
Culbertson/USN, Guitierrez/USAF, Hammond/USAF, Ivins, Lee/USAF, Low,
McCulley/USN, W. Shepherd/USN, K. Thornton, Veach/ANG, Wetherbee/USN (17)

GROUP 11 - Pilots and Mission Specialists, June 1985:

Apt, M. Baker/USN, Cabana/USMC, Duffy/USAF, Gemar/USA, Godwin, Hendricks/USAF, Hieb, Jernigan, Meade/USAF, Oswald/USNR, Thorne/USN, Thuot/USN (13)

GROUP 12 - Pilots and Mission Specialists, August 1987:

Akers/USAF, A. Allen/USMC, Bowersox/USN, C. Brown/USAF, Chilton/USAF, Davis, Foale, Harbaugh, Jemison, McMongle/USAF, Melnick/USCG, Readdy/USN, Reightler/USN, Runco/USN, James Voss/USA (15)

GROUP 13 - Pilots and Mission Specialists, January 1990:

Bursch/USN, Chiao, Clifford/USA, Cockrell/USN, E. Collins/USAF, Currie(Sherlock)USA, W. Gregory/USAF, Halsell/USAF, Harris, Helms/USAF, Jones, W. McArthur/USA, Newman, Ochoa, Precourt/USAF, Searfoss/USAF, Sega/USAFR, D. Thomas, Janice Voss, Walz/USAF, Wilcutt/USMC, Wisoff, Wolf/ANG (23)

GROUP 14 - Pilots and Mission Specialists, March 1992:

Barry, Brady/USN, Coleman/USAF, Gernhardt, Grunsfeld, Horowitz/USAF, Jett/USN, Kregel/, Lawrence/USN, Linenger/USN, Linnehan, Lopez-Alegria/USN, Parazynski, Rominger/USN, W. Scott/USN, S. Smith, Tanner, A. Thomas, M. Weber (19)

GROUP 15 - Pilots and Mission Specialists, January 1995:

Altman/USN, M. Anderson/USAF, Ashby/USN, Bloomfield/USAF, Chawla, Curbeam/USN, Edwards/USN, Gorie/USN, Hire/USNR, Husband/USAF, Kavandi, Lindsey/USAF, Lu, Melroy/USAF, Noriega/USMC, Reilly/USNR, S. Robinson, Kilrain(Still)/USN, Sturckow/USMC (19)

GROUP 16 - Pilots and Mission Specialists, May 1996:

D. Brown/USN, Burbank/USCG, Cagle/USAF, Caldeiro, Camarda, Carey/USAF, Clark/USN, Fincke/USAF, Forrester/USA, Frick/USN, Herrington/USN, Higginbotham, Hobaugh/USMC, J. Kelly/USAF, M. Kelly/USN, S. Kelly/USN, Lockhart/USAF, Loria/USMC, Magnus, Massimino, Mastracchio, McCool/USN, Morin/USN, Nowak/USN, Pettit, Phillips/USNR, Polansky, P. Richards/, Sellers, Stefanyshyn-Piper/USN, Tani, Walheim/USAF, P. Whitson, J. Williams/USA, Wilson (35)

GROUP 17 - Pilots and Mission Specialists, June 1998:

C. Anderson, Archambault/USAF, Caldwell, Chamitoff, Creamer/USA, Ferguson/USN, Foreman/USN, Fossum/USAFR, Ham/USN, G.C. Johnson/USNR, G.H. Johnson(Box)/USAF, Love, Melvin, Morgan, Oefelein/USN, Olivas, Patrick, Poindexter/USN, Reisman, Robertson, Swanson, Wheelock/USA, S. Williams/USN, Woodward/USN, Zamka/USMC (25)

GROUP 18 - Pilots and Mission Specialists, July 2000:

Antonelli/USN, Barratt, Behnken/USAF, Boe/USAF, Bowen/USN, Drew/USAF, Feustel, Ford/USAF, Garan/USAF, Good/USAF, Hurley/USMC, Kopra/USA, M. McArthur, Nyberg, Stott, Virts/USAF, Wilmore/USN (17)

GROUP 19 - Pilots, Mission Specialists & Educator Mission Specialists, May 2004:

Acaba(edu), Arnold(edu), Bresnik/USMC, Cassidy/USN, Dutton/USAF, Hernandez, Kimbrough/USA, Marshburn/, Metcalf-Lindenburger(edu), Satcher, S. Walker (11)

GROUP 20 – U S Astronauts, July 2009

Aunon, Epps, Fischer/USAF, Hopkins/USAF, Lindgren, Rubins, Tingle/USN,
Vande Hei/USA, Wiseman/USN (9)

As of the ASCAN Class of 2009, 44,658 people have applied to become astronauts

Only 330 have been accepted into the astronaut candidate program
(48 females & 282 men)

6.0 CONGRESSIONAL SPACE MEDAL OF HONOR

In honor of NASA's 20th anniversary, President Jimmy Carter visited NASA John F. Kennedy Space Center on October 1, 1978, and awarded the first Congressional Space Medal of Honor to six former astronauts. Authorized by Congress in 1969, the award recognized "any astronaut who in the performance of his duties has distinguished himself by exceptionally meritorious efforts and contributions to the welfare of the Nation and mankind." Recipients are recommended by the NASA Administrator and presented by the President of the United States. These astronauts received this special honor:

Neil A. Armstrong, for actions to overcome problems on the Gemini 8 mission and for Apollo 11 when he took his "...giant leap for mankind."

Frank Borman, who commanded the Gemini 7 and Apollo 8 missions. The latter was the first manned spacecraft to orbit the Moon.

Charles Conrad, Jr., who participated in four space flights of increasing duration, complexity and achievement: Gemini 5, Gemini 11, Apollo 12, and Skylab 2. On the first manned Skylab mission, he commanded the crew that performed repairs to the damaged orbital workshop, thus saving the two billion dollar program from potential failure.

John H. Glenn, Jr., who in Mercury 6 was the first American to orbit the Earth. The success of his flight demonstrated the value of the human pilot in space.

Virgil I. Grissom (posthumously), the second American in space, who took part in Mercury and Gemini flights and lost his life during preparations for the first Apollo flight. He flew on Mercury 4 and Gemini 3.

Alan B. Shepard, Jr., who was the first American in space, aboard Mercury 3. He also commanded the Apollo 14 mission.

Roger B. Chaffee (posthumously) was one of the third groups of astronauts chosen but lost his life before his first flight during preparations for the first Apollo flight. President William Clinton awarded the medal on December 17, 1997.

Edward H. White (posthumously) piloted Gemini 4 and performed the first U.S. space walk, floating outside the capsule for 21 minutes. President William Clinton awarded the medal on December 17, 1997.

John W. Young, who demonstrated leadership, courage, and technical skill in a space flight career that spanned two decades and five (at that time) space flights pivotal to human progress in space. He flew on Gemini 3, Gemini 10, Apollo 10, Apollo 16, and STS-1 prior to receipt of the medal which was presented May 19, 1981, by President Ronald Reagan.

Thomas J. Stafford, who commanded the first flight of the lunar module to the Moon and the American crew that rendezvoused with a Soviet spacecraft in 1975. He was recognized for his past contributions, and for continuing to serve the Nation in charting a future vision for our space program. He flew on Gemini 6 and 9, Apollo 10, and the Apollo-Soyuz Test Project. Vice President Dan Quayle at the direction of President George Bush presented the medal in 1992.

James A. Lovell, who flew on Gemini 7 and 12, and Apollo 8 and 13, was presented the medal on July 26, 1995. In his remarks, President Bill Clinton especially commended Lovell for his performance on Apollo 13, which demonstrated, “the kind of resourcefulness, grit, and grace under pressure that is the province of heroes.”

Shannon Lucid, who spent 188 days in space on the U.S. shuttle and Russian space station Mir, was presented the medal on December 2, 1996. Noting that the medal is given out sparingly because it honors “extraordinary service to the nation,” President Bill Clinton added that “Dr. Lucid achieved that kind of service for 188 days this year, the longest flight by an American in space, the longest time for any woman of any nation in space, five shuttle missions altogether.”

William Shepherd, who was the first astronaut to command a crew on the International Space Station, received the medal from President George W. Bush on January 15, 2003. Shepherd and the two other members of his crew spent 141 days in space, beginning a new era of international cooperation in space exploration.

Rick D. Husband, Willie C. McCool, David M. Brown, Kalpana Chawla, Michael P. Anderson, Laurel B. Clark and Ilan Ramon were posthumously presented the medal for their ultimate sacrifice in service to their Nations and mankind. President George W. Bush presented the medal to their families on February 3, 2004.

Francis R. Scobee, Michael J. Smith, Judith A. Resnik, Ellison S. Onizuka, Ronald E. McNair, Gregory B. Jarvis and Sharon Christa McAuliffe were posthumously presented the medal for their ultimate sacrifice in service to their Nation and mankind. President George W. Bush presented the medal to their families on July 23, 2004.

7.0 ASTRONAUTS AFFILIATIONS TO STATES

7.1 ASTRONAUT BIRTHPLACES

STATE	ASTRONAUT	STATUS
Alabama (6)	Hartsfield, Hank	Former
	Hire, Kay	Management
	Jemison, Mae	Former
	Thornton, Kathryn	Former
	Voss, James	Former
	Williams, Clifford	Deceased
Arizona (2)	Creamer, T. J.	Management
	Smith, Steven	Management
Arkansas (2)	Covey, Richard	Former
	Parazynski, Scott	Former
California (23)	Acaba, Joseph	Active
	Caldwell Dyson, Tracy	Active
	Chilton, Kevin	Former
	Clifford, Michael	Former
	Coats, Michael	Former
	Hauck, Rick	Former
	Hernandez, Jose	Former
	Lindsey, Steve	Former
	Love, Stan	Management
	McCaulley, Michael	Former
	McCool, Willie	Deceased
	Melroy, Pamela	Former
	Morgan, Barbara	Former
	Ochoa, Ellen	Management
	O'Connor, Bryan	Former
	Olivas, John "Danny"	Former
	Poindexter, Alan	Deceased
	Ride, Sally	Deceased
	Robinson, Steve	Former
	Sturckow, Rick	Former
	van Hoften, James	Former
	Walheim, Rex	Active
	Young, John	Former
Colorado (9)	Brand, Vance	Former
	Carpenter, Scott	Former
	Carr, Gerald	Former
	Fischer, Jack	Active
	Lounge, John "Mike"	Deceased
	Metcalf-Lindenburger, Dottie	Active
Rominger, Kent	Former	

STATE	ASTRONAUT	STATUS
California	Roosa, Stuart	Deceased
	Swigert, John	Deceased
Connecticut (6)	Barry, Dan	Former
	Burbank, Dan	Active
	Mastracchio, Richard	Active
	Rubins, Kate	Active
	Spring, Sherwood (Woody)	Former
	Thuot, Pierre	Former
DC (Wash) (4)	Drew, Alvin	Active
	Gregory, Fred	Former
	Nowak, Lisa	Former
	Stewart, Robert	Former
Delaware (1)	Currie, Nancy	Management
Florida (7)	Boe, Eric	Active
	Davis, Jan	Former
	Lawrence, Wendy	Former
	Lenoir, William	Deceased
	Richards, Richard	Former
	Scott, Winston	Former
	Thagard, Norman	Former
Georgia (5)	Bridges, Roy	Former
	Carter, Manley "Sonny"	Deceased
	Hammond, Blaine	Former
	Kilrain, Susan (Still)	Former
	Walker, David	Deceased
Hawaii (2)	McArthur, Megan	Active
	Onizuka, Ellison	Deceased
Idaho (1)	Reilly, James	Former
Illinois (14)	Altman, Scott	Former
	Archambault, Lee J.	Former
	Cernan, Eugene	Former
	Grunsfeld, John	Management
	Higginbotham, Joan	Former
	Kerwin, Joe	Former
	Magnus, Sandy	Former
	Mattingly, Tom	Former
	McDivitt, James (Jim)	Former
	Meade, Carl	Former
	Nagel, Steve	Former
	Tanner, Joe	Former
	Veach, Charles (Lacy)	Deceased
	Woodward, Neil	Former
Indiana (11)	Allen, Joe	Former
	Aunon, Serena	Active

STATE	ASTRONAUT	STATUS	
Indiana	Borman, Frank	Former	
	Brown, Mark	Former	
	England, Anthony (Tony)	Former	
	Ford, Kevin	Active	
	Grissom, Virgil (Gus)	Deceased	
	Ross, Jerry	Former	
	Voss, Janice	Deceased	
	Williams, Donald	Former	
	Wolf, David	Former	
Iowa (6)	Clark, Laurel	Deceased	
	Cunningham, Walter	Former	
	Hilmers, Dave	Former	
	Kelly, Jim	Management	
	Nelson, George (Pinky)	Former	
	Shriver, Loren	Former	
Kansas (3)	Engle, Joseph	Former	
	Evans, Ronald	Deceased	
	Hawley, Steven	Former	
Kentucky (2)	Bresnik, Randy	Active	
	Wilcutt, Terrance (Terry)	Management	
Louisiana (2)	Gorie, Dominic	Former	
	Halsell, James	Former	
Maine (1)	Hobaugh, Charles	Former	
Maryland (7)	Arnold, Ricky	Active	
	Curbeam, Robert	Former	
	Ivins, Marsha	Former	
	Jones, Tom	Former	
	Reightler, Kenneth	Former	
	Virts, Terry	Active	
	Wiseman, Reid G.	Active	
	Massachusetts (13)	Apt, Jay	Former
		Bowen, Steve	Active
		Cassidy, Chris	Active
		Duffy, Brian	Former
		Linnehan, Richard	Management
		Loria, Chris	Former
	Lu, Ed	Former	
	McCandless, Bruce	Former	
	Musgrave, Story	Former	
	O'Leary, Brian	Deceased	
	Precourt, Charlie	Former	
	Tingle, Scott	Active	
	Wilson, Stephanie	Active	

STATE	ASTRONAUT	STATUS
Michigan (11)	Antonelli, Dominic	Active
	Bloomfield, Michael	Former
	Chaffee, Roger	Deceased
	Jett, Brent	Former
	Leestma, David	Management
	Linenger, Jerry	Former
	Lousma, Jack	Former
	McMonagle, Donald	Former
	Searfoss, Richard	Former
	Shaw, Brewster	Former
	Worden, Al	Former
Minnesota (5)	Cabana, Robert	Management
	Carey, Duane	Former
	Gardner, Dale	Former
	Nyberg, Karen	Active
	Stefanyshyn-Piper, Heidemarie	Former
Mississippi (3)	Haise, Fred	Former
	Peterson, Donald	Former
	Truly, Richard	Former
Missouri (6)	Akers, Thomas	Former
	Behnken, Robert	Active
	Godwin, Linda	Former
	Hopkins, Mike	Active
	Kavandi, Janet	Management
	Springer, Robert	Former
Nebraska (1)	Anderson, Clayton	Former
New Hampshire (2)	Morin, Lee	Management
	Shepard, Alan	Deceased
New Jersey (10)	Aldrin, Edwin "Buzz"	Former
	Ham, Ken	Former
	Kelly, Mark	Former
	Kelly, Scott	Active
	Polansky, Mark	Former
	Reisman, Garrett	Former
	Schirra, Walter (Wally)	Deceased
	Schweickart, Russell (Rusty)	Former
	Sullivan, Kathy	Former
	Zamka, George	Former
New Mexico (2)	Gutierrez, Sidney	Former
	Schmitt, Harrison	Former
New York (26)	Adamson, James	Former
	Anderson, Michael	Deceased
	Bobko, Karol	Former
	Cagle, Yvonne	Management

STATE	ASTRONAUT	STATUS	
New York	Camarda, Charlie	Management	
	Cleave, Mary	Former	
	Collins, Eileen	Former	
	Epps, Jeanette	Active	
	Fisher, Anna	Management	
	Fullerton, Gordon	Former	
	Garan, Ronald	Management	
	Gibson, Edward	Former	
	Gibson, Robert (Hoot)	Former	
	Grabe, Ron	Former	
	Gregory, William	Former	
	Hurley, Doug	Active	
	Hoffman, Jeffrey	Former	
	Kregel, Kevin	Former	
	Massimino, Michael	Management	
	Melnick, Bruce	Former	
	Parker, Robert	Former	
	Runco, Mario	Management	
	Stott, Nicole	Active	
	Swanson, Steve	Active	
	Wetherbee, James	Former	
	Wheelock, Douglas	Active	
	North Carolina (9)	Baker, Ellen	Former
		Brady, Charles	Former
		Brown, Curt	Former
		Duke, Charlie	Former
		Helms, Susan	Former
Marshburn, Tom		Active	
McArthur, William (Bill)		Management	
Smith, Michael		Deceased	
Thornton, William (Bill)		Former	
North Dakota (2)	Buchli, James	Former	
	Hieb, Richard	Former	
Ohio (20)	Armstrong, Neil	Deceased	
	Bassett, Charles	Deceased	
	Cameron, Kenneth	Former	
	Eisele, Donn	deceased	
	Foreman, Michael	Management	
	Gernhardt, Michael	Management	
	Glenn, John	Former	
	Good, Michael	Management	
	Harbaugh, Greg	Former	

STATE	ASTRONAUT	STATUS
Ohio	Henize, Carl	Deceased
	Henricks, Terence	Former
	Lovell, James	Former
	Low, G. David	Deceased
	Overmyer, Robert	Deceased
	Resnik, Judy	Deceased
	Sega, Ronald	Former
	Thomas, Donald	Former
	Walz, Carl	Former
	Weber, Mary Ellen	Former
Oklahoma (5)	Williams, Sunita	Active
	Cooper, Gordon	Deceased
	Garriott, Owen	Former
	Herrington, John	Former
	Pogue, William	Former
Oregon (3)	Stafford, Thomas	Former
	Dutton, James	Management
	Griggs, S. David	Deceased
Pennsylvania (17)	Pettit, Donald	Active
	Allen, Andy	Former
	Bagian, James	Former
	Bluford, Guion	Former
	Bursch, Daniel	Former
	Conrad, Charles	Deceased
	Ferguson, Chris	Former
	Feustel, Drew	Active
	Fincke, Michael	Active
	Freeman, Theodore	Deceased
	Frick, Steven	Management
	Hart, Terry	Former
	Horowitz, Scott	Former
	Irwin, James	Deceased
	Richards, Paul	Management
	Robertson, Patricia	Deceased
	Tani, Daniel	Former
Weitz, Paul	Former	
Rhode Island (1)	Readdy, William	Former
South Carolina (5)	Bolden, Charles	Management
	Casper, John	Management
	Coleman, Catherine (Cady)	Active
	Culbertson, Frank	Former
	McNair, Ronald	Deceased
South Dakota (2)	Fossum, Michael	Active
	Gemar, Charles (Sam)	Former

STATE	ASTRONAUT	STATUS
Tennessee (6)	Baker, Michael	Management
	Bull, John	Deceased
	Jernigan, Tammy	Former
	Seddon, Margaret	Former
	Shepherd, William	Former
	Wilmore, Barry (Butch)	Active
Texas (22)	Ashby, Jeff	Former
	Bean, Alan	Former
	Blaha, John	Former
	Cockrell, Ken	Management
	Creighton, John	Former
	Crippen, Robert	Former
	Fabian, John	Former
	Fisher, William	Former
	Forrester, Patrick	Management
	Givens, Edward	Deceased
	Harris, Bernard	Former
	Holmquest, Donald	Former
	Husband, Rick	Deceased
	Kimbrough, Robert (Shane)	Active
	Kopra, Tim	Active
	Lockhart, Paul	Former
	Mitchell, Edgar	Former
	Mullane, Mike	Former
	Scott, David	Former
	See, Eliot	Deceased
	Walker, Shannon	Active
	White, Edward	Deceased
Utah (1)	Lind, Don	Former
Vermont (1)	Graveline, Duane	Former
Virginia (10)	Bowersox, Ken	Former
	Brown, David	Deceased
	Edwards, Joe	Former
	Guy Gardner	Former
	Melvin, Leland	Management
	Oefelein, Bill	Former
	Phillips, John	Former
	Satcher, Robert (Bobby)	Former
	Vande Hei, Mark	Active
	Wisoff, Peter J.K. (Jeff)	Former
Washington (6)	Barratt, Mike	Active
	Dunbar, Bonnie	Former
	Gordon, Richard	Former
	Johnson, Greg C. (RayJ)	Management

STATE	ASTRONAUT	STATUS
Washington	Oswald, Steve	Former
	Scobee, Richard	Deceased
West Virginia (1)	McBride, John	Former
Wisconsin (6)	Brandenstein, Daniel	Former
	Chiao, Leroy	Former
	Lee, Mark	Former
	Michel, Curtis	Former
	Slayton, Donald K. (Deke)	Deceased
	Williams, Jeffrey (Jeff)	Active

7.2 ASTRONAUT COLLEGES

ALABAMA

- Auburn University(6)

Former: J. Davis, H. Hartsfield, T. Mattingly, K. Thornton, James Voss

Deceased: C. Williams

- Troy State(4)

Active: K. Ford

Former: W. Gregory, J. Halsell, K. Kregel

- University of Alabama(1)

Management: J. Kelly

- University of Alabama-Huntsville(1)

Former: J. Davis

- University of Alabama-Birmingham(1)

Management: L. Morin

ARIZONA

- University of Arizona(6)

Active: J. Acaba, D. Pettit

Former: T. Jones, S. Spring

Deceased: F. Caldeiro, D. Scobee

CALIFORNIA

- Naval Post-Graduate School (32)

Active: J. Williams

Management: M. Foreman, S. Frick, D. Leestma

Former: S. Altman, D. Bursch, G. Carr, E. Cernan, M. Coats, R. Curbeam, C. Ferguson, K. Ham, J. Herrington, D. Hilmers, B. Jett, M. Kelly, M. Lopez-Algeria, J. Lousma, J. McBride, E. Mitchell, C. Noriega, L. Nowak, K. Reightler, K. Rominger, W. Scott, R. Springer, P. Weitz

Deceased: R. Evans, W. McCool, R. Overmyer, A. Poindexter, M. Smith

- Stanford University (21)

Active: M. Fincke, M. Hopkins, K. Rubins, M. Vande Hei

Management: E. Ochoa, S. Smith

Former: E. Collins, W. Fisher, O. Garriott, S. Helms, M. Jemison, T. Jernigan, E. Lu, B. McCandless, B. Morgan, S. Parazynski, S. Robinson J. Wisoff

Deceased: J. Bull, G.D. Low, S. Ride

- California Institute of Technology (11)

Active: R. Behnken, G. Chamitoff

Former: F. Borman, C.G. Fullerton, E. Gibson, C. Meade, C. Michel, R. Parker, G. Reisman, H. Schmitt, R. Searfoss

- University of Southern California (10)

Management: C. Bolden, N. Currie

Former: K. Bobko, G. Carr, B. Duffy, J. Linenger, C. Noriega, K. Reightler, P. Thuot

Deceased: N. Armstrong

- University of California – Berkeley (8)

Active : R. Walheim

Former: L. Chiao, T. Jernigan, D. Lind, M. Seddon, J. van Hoften, M. Weber

Deceased: B. O'Leary

- University of California-Los Angeles (7)

Active: M. McArthur

Management: A. Fisher

Former: V. Brand, J. Phillips, W. Cunningham, S. Musgrave

Deceased: E. See

- California Polytechnic (3)

Active: G. Chamitoff

Former: R. Gibson, R. Sturckow

- California State – Fresno (3)

Former: S. Nagel, D. McMonagle

Deceased: R. Husband

- University of California-Santa Barbara (3)

Active: J. Acaba

Former: L. Chiao, J. Hernandez

- Golden Gate (2)

Former: C. Precourt, T. Henricks

- Harvey Mudd (2)

Management: S. Love

Former - G. Nelson

- University of California – Davis (2)

Active: T. Caldwell Dyson

Former: S. Robinson

- University of California-San Diego (2)

Active: M. McArthur, K. Rubins

- University of California-Santa Cruz (2)

Former: S. Hawley, K. Sullivan

- Cal State(1)

Active: T. Caldwell Dyson

- Cal State-Northridge(1)

Former: S. Horowitz

- San Diego State(1)

Management: E. Ochoa

- San Francisco State(1)

Management: Y. Cagle

- University of Pacific(1)

Former: J. Hernandez

COLORADO

- United States Air Force Academy (36)

Active: E. Boe, A. Drew, J. Fischer, G.H. Johnson, K. Lindgren, T. Virts

Management: J. Casper, J. Kelly, J. Dutton

Former: J. Blaha, M. Bloomfield, K. Bobko, R. Bridges, C. Brown, K. Chilton,

R. Covey, B. Duffy, G. Gardner, R. Grabe, F. Gregory, W. Gregory, S. Gutierrez, J. Halsell,

B. Hammond, S. Helms, T. Hendricks, T. Jones, K. Kregel, M. Lee, S. Lindsey, D.

McMonagle, C. Precourt, R. Searfoss, R. Segal, L. Shriver

Deceased: C. Veach

- University of Colorado (14)

Active - K. Lindgren, S. Swanson

Former - V. Brand, S. Carpenter, J. Herrington, R. Hieb, M. Ivins, R. Segal, James Voss

Deceased - K. Chawla, M. Lounge, E. Onizuka, S. Roosa, J. Swigert

- Colorado State (4)

Active: K. Lindgren

Former: M. Cleave, K. Rominger, J. van Hoften

CONNECTICUT

- Coast Guard Academy (2)

Active: D. Burbank

Former: B. Melnick

- University of Connecticut (2)
Active: R. Mastracchio
Former: Franklin Chang-Diaz
- Hartford (1) *Deceased:* J. Swigert
- Yale(1) *Former:* J. Allen

DC (Washington)

- George Washington University (7)
Active: S. Aunon
Management: C. Camarda
Former: J. Creighton, F. Gregory, M. Coats, N. Woodward
Deceased: D. Griggs
- Georgetown(1) *Deceased:* B. O'Leary

FLORIDA

- Embry-Riddle University (6)
Active: D. Burbank, A. Drew, N. Stott, T. Virts
Management: R. Garan
Former: S. Still-Kilrain
- University of West Florida (6)
Management: K. Cockrell
Former: J. Buchli, B. Melnick, B. O'Connor, J. Phillips, R. Richards
- Florida Tech (4)
Active: S. Williams
Management: K. Hire
Former: J. Higginbotham, G. Zamka
- University of Florida (3)
Active: K. Ford,
Management: R. Garan
Former: W. Fisher
- Florida State (2)
Former: W. Scott, N. Thagard
- Atlantic(1) *Active:* S. Swanson
- University of Central Florida(1) *Deceased:* F. Caldeiro
- University of Central Florida(1) *Active:* N. Stott
- University of Miami(1) *Former:* D. Barry

GEORGIA

- Georgia Institute of Technology (14)
Active: E. Boe, R.S. Kimbrough, T. Kopra, S. Magnus, D. Wheelock
Management: W. McArthur
Former: M. Clifford, N.J. Davis, B. Hammond, S. Horowitz, S. Still-Kilrain, R. Truly, J. Young
Deceased: A. Poindexter
- Emory (1) *Deceased:* M. Carter

IOWA

- Cornell(1) *Deceased:* D. Hilmers
- Iowa State(1) *Management:* C. Anderson
- Wesleyan(1) *Active:* P. Whitson

IDAHO

- Northwest Nazarene(1) *Former:* R. Hieb
- University of Idaho(1) *Former:* J. Ashby

ILLINOIS

- University of Illinois (6)
Active: M. Hopkins
Former: S. Altman, L. Archambault, D. Gardner, S. Nagel, J. Tanner
- Northwestern (2)
Active: M. Barratt
Former: J. Kerwin
- Southern Illinois University (1) *Former:* J. Higginbotham
- University of Chicago (1) *Management:* J. Grunsfeld

INDIANA

- Purdue University (20)
Active: A. Feustel, S. Tingle
Management: J. Casper
Former: J. Blaha, R. Bridges, M. Brown, E. Cernan, R. Covey, G. Gardner, G. Harbaugh, M. McCulley, M. Polansky, J. Ross, L. Shriver, M. Weber, D. Williams, D. Wolf
Deceased: R. Chaffee, V. Grissom, N. Armstrong
- Notre Dame (3)
Active: K. Ford
Management: M. Good
Former: J. Wetherbee
- DePauw University(1) *Former:* J. Allen
- Indiana University(1) *Former:* D. Wolf

KANSAS

- University of Kansas (3)
Former: J. Engle, S. Hawley
Deceased: R. Evans

KENTUCKY

- University of Kentucky(1) *Former:* S. Musgrave
- West Kentucky University(1) *Management:* T. Wilcutt

LOUISIANA

- Tulane University(1) *Active:* D. Hurley

MARYLAND

- United States Naval Academy (52)
Active: S. Bowen, C. Cassidy, S. Williams
Management: C. Bolden, R. Cabana, M. Foreman, S. Frick, K. Hire, D. Leestma
Former: W. Anders, K. Bowersox, J. Buchli, D. Bursch, M. Coats, J. Creighton, F. Culbertson, R. Curbeam, C. Duke, J. Edwards, D. Gorie, K. Ham, C. Hobough, B. Jett, W. Lawrence, J. Linenger, M. Lopez-Alegria, C. Loria, M. Lounge, J. Lovell,

B. McCandless, L. Nowak, B. O'Connor, S. Oswald, J. Phillips, W. Readdy,
 K. Reightler, W. Shepherd, R. Springer, T. Stafford, P. Thuot, G. Zamka
Deceased: D. Eisele, T. Freeman, E. Givens, D. Griggs, J. Irwin, W. McCool, W. Schirra,
 A. Shepard, M. Smith, S. Thorne, D. Walker

- University of Maryland (5)

Active: R. Arnold, J. Epps

Management: P. Richards

Deceased: W. McCool, J. Resnik

- John Hopkins(1)

Active: G. Wiseman

- Frostberg State University(1)

Active: R. Arnold

- Loyola University(1)

Management: T.J. Creamer

MASSACHUSETTS

- Massachusetts Institute of Technology (34)

Active: D. Antonelli, S. Bowen, C. Cassidy, G. Chamitoff, C. Coleman, M. Fincke, J. Fischer

Management: T. Creamer, J. Grunsfeld, M. Massimino

Former: E. Aldrin, J. Apt, K. Cameron, F. Chang-Diaz, P. Chapman, C. Duke,

A. England, T. Hart, F. Hauck, W. Lawrence, M. Lee, P. Melroy,

E. Mitchell, N. Patrick, R. Satcher, R. Schweickart, H. Stefanyshyn-Piper,

D. Scott, W. Shepherd, D. Tani, N. Woodward

Deceased: W. Lenoir, R. McNair, Janice Voss

- Harvard University (4)

Active: S. Wilson

Former: J. Hoffman, R. Satcher, H. Schmitt

- Amherst (2)

Former: J. Hoffman, R. Parker

- University of Massachusetts(1)

Active: C. Coleman

- SE Massachusetts University(1)

Active: S. Tingle

- Harvard College(1)

Former: J. Apt

- Holy Cross(1)

Former: J. Kerwin

- Tufts(1)

Former: R. Hauck

- Williams College(1)

Deceased: B. O'Leary

MICHIGAN

- University of Michigan (7)

Former: J. Lousma, J. McDivitt, A. Worden

Deceased: T. Freeman, K. Henize, J. Irwin, E. White

MINNESOTA

- University of Minnesota (3)

Active: K. Lindgren

Former: D. Carey

Deceased: D. Slayton

- St. John's University(1)

Active: M. Vande Hei

MISSOURI

- University of Missouri-Rolla (3)

Active: S. Magnus

Management: J. Kavandi

Former: T. Akers

- University of Missouri (2)
Former: L. Godwin, R. Richards
- Webster - Missouri (2)
Former: E. Collins, S. Gutierrez
- Missouri Southern(1) *Management:* J. Kavandi
- Southeast Missouri State(1) *Former:* L. Godwin
- Washington University(1) *Former:* R. Behnken

MISSISSIPPI

- Southern Mississippi(1) *Former:* R. Stewart

MONTANA

- John Carroll University(1) *Former:* C. Walz

NEBRASKA

- Creighton(1) *Deceased:* M. Anderson
- Hastings(1) *Management:* C. Anderson
- Wayne State(1) *Former:* J. Linenger

NEW HAMPSHIRE

- University of New Hampshire (2)
Management: R. Linnehan, L. Morin
- Dartmouth(1) *Former:* J. Newman

NEW JERSEY

- Princeton (4)
Former: J. Adamson, D. Barry, G. Carr
Deceased: C. Conrad
- Rutgers (2)
Management: M. Runco
Former: T. Hart

NEW YORK

- United States Military Academy, West Point (18)
Active: R.S. Kimbrough, T. Kopra, D. Wheelock, J. Williams
Management: P. Forrester, W. McArthur
Former: J. Adamson, E. Aldrin, F. Borman, M. Clifford, M. Collins, C. Gemar, R. Mullane, D. Peterson, D. Scott, S. Spring, A. Worden
Deceased: E. White
- Columbia University (6)
Active: G. H. Johnson
Management: M. Massimino
Former: K. Bowersox, K. Chilton, W. Gregory, S. Musgrave
- Cornell University (6)
Former: E. Baker, D. Barry, M. Jemison, E. Lu, D. Thomas
Deceased: G. D. Low
- Rensselaer Polytechnic (3)
Active: R. Mastracchio, G. Wiseman
Deceased: J. Swigert

- Merchant Marine Academy (2)

Former: M. Kelly

Deceased: E. See

- State University of New York (2)

Management: R. Garan

Former: E. Baker

- Syracuse (2)

Former: E. Collins, S. Musgrave

- City College(1)

Management: M. Runco

- LeMoyne College(1)

Active: J. Epps

- New York University(1)

Management: L. Morin

- Polytechnic Institute of Brooklyn(1)

Management: C. Camarda

- Rochester (1)

Former: E. Gibson

- NY State-Farmingdale(1)

Deceased: F. Caldeiro

- NY State-Maritime(1)

Active: S. Kelly

NORTH CAROLINA

- University of North Carolina (3)

Former: J. Linenger, W. Thornton

Deceased: C. Brady

- Davidson College(1)

Active: T. Marshburn

- Duke University(1)

Deceased: C. Brady

- Wake Forest(1)

Active: T. Marshburn

- Agricultural & Technical State(1)

Deceased: R. McNair

NORTH DAKOTA

- University of North Dakota(1)

Active: K. Nyberg

OHIO

- Air Force Institute of Technology (12)

Active: K. Ford, M. Fossum

Former: W. Anders, G. Bluford, M. Brown, J. Fabian, J. Halsell, S. Lindsey, M. Mullane, D. Peterson

Deceased: G. Cooper, D. Eisele

- The Ohio State University(3)

Management: N. Currie, R. Linnehan

Former: R. Sega

- Baldwin-Wallace(1)

Deceased: R. Overmyer

- Case Western(1)

Former: D. Thomas

- Kent State(1)

Former: C. Walz

- Marietta(1)

Former: S. Musgrave

- Muskingum(1)

Former: J. Glenn

- Wright State(1)

Active: M. Barratt

OKLAHOMA

- University of Oklahoma (3)

Former: S. Lucid, O. Garriott, F. Haise,

- Oklahoma Baptist(1) *Former: W. Pogue*
- Oklahoma City(1) *Deceased: G. Cooper (hon Sci doctorate)*
- Oklahoma State(1) *Former: W. Pogue*

OREGON

- Oregon State (2)
Active: D. Pettit
Former: W. Oefelein

PENNSYLVANIA

- Drexel University (3)
Management: P. Richards
Former: C. Ferguson, J. Bagian
- University of Pennsylvania (3)
Management: M. Gernhardt
Former : G. Reisman
- Indiana University of Pennsylvania (1) *Deceased: P. Robertson*
- Carnegie-Mellon (2)
Former: E. Mitchell
Deceased: J. Resnik
- Penn State (2)
Former: G. Bluford, P. Weitz
- Lehigh(1) *Former: T. Hart*
- Pennsylvania Medical College(1) *Deceased: P. Robertson*
- Thomas Jefferson(1) *Former: J. Bagian*
- Villanova(1) *Former: A. Allen*

RHODE ISLAND

- Naval War College(1) *Active: J. Williams*

SOUTH CAROLINA

- The Citadel(1) *Active: R. Bresnik*

TENNESSEE

- University of Tennessee - Tennessee (7)
Active: S. Kelly, B. Wilmore
Former: J. Ashby, J. Edwards, D. Gorie, H. Hartsfield, M. Seddon
- Tennessee Tech(1) *Active: B. Wilmore*
- Vanderbilt(1) *Management: M. Gernhardt*
- Tennessee Space Institute(1) *Former: W. Oefelein*

TEXAS

- University Of Houston (7)
Active: R. Walheim
Management: N. Currie
Former: B. Dunbar, B. Harris, D. Holmquest, S. Musgrave, J.D. Olivas

- University of Texas (12)
Active: S. Aunon, K. Nyberg, S. Wilson
Management: M. Baker, K. Cockrell
Former: A. Bean, R. Crippen, P. Lockhart, C. Meade, N. Thagard, N. Woodward
Deceased: K. Chawla
- Rice University (7)
Active: S. Walker, P. Whitson
Former: J. Hoffman, T. Jernigan, J. Newman, D. Olivas
Deceased: J. Bull
- University of Houston-Clear Lake (7)
Active: G. Chamitoff, M. Fincke, M. Fossum, R. Mastracchio
Former: G. Bluford, G. Harbaugh, B. McCandless
- Texas Tech (4)
Former: B. Harris, P. Lockhart
Deceased: C. Bassett, R. Husband
- Texas A&M (2)
Active: M. Fossum, S. Swanson
- University of Texas-Arlington (1)
Former: R. Stewart
- University of Texas – Medical Branch (2)
Active: K. Lindgren, T. Marshburn
- Baylor University(1) *Former:* D. Holmquest
- University of Texas-Dallas(1) *Former:* J. Reilly
- University of Texas-El Paso(1) *Former:* D. Olivas
- Univ. of Texas-Public Health(1) *Former:* E. Baker

UTAH

- University of Utah(1) *Former:* D. Lind
- Utah State(1) *Former:* M. Cleave

VERMONT

- University of Vermont(1) *Former:* D. Graveline

VIRGINIA

- University of Virginia (6)
Active: T. Marshburn
Management: P. Forrester, L. Melvin
Former: K. Thornton, J. Wisoff
Deceased: C. Henize
- East Virginia Medical(1) *Deceased:* D. Brown
- Old Dominion(1) *Former:* M. Bloomfield Virginia
- Polytech(1) *Management:* C. Camarda
- William & Mary(1) *Deceased:* D. Brown
- University of Richmond(1) *Management:* L. Melvin
- Washington & Lee(1) *Deceased:* G. Low

WASHINGTON

- University of Washington (12)

Active: D. Antonelli, M. Barratt

Management: Y. Cagle, G.C. Johnson, J. Kavandi, S. Love, J. Dutton

Former: B. Dunbar, J. Fabian, R. Gordon, G. Nelson

Deceased: M. Anderson

- Washington State(1)

Former: J. Fabian

- Whitman College(1)

Active: D. Metcalf-Lindenburger

WISCONSIN

- University of Wisconsin - Wisconsin (2)

Former: B. Shaw

Deceased: L. Clark

- University of Wisconsin-River Falls(1)

Former: D. Brandenstein

8.0 ASTRONAUTS BORN IN OTHER COUNTRIES

*** (Includes Current International Astronauts)**

ARGENTINA: Caldeiro

AUSTRALIA: Chapman, Scully-Power, A. Thomas

BRAZIL: Pontes

CANADA: Chamitoff, Hadfield, Hansen, Payette, Saint-Jacques, Thirsk, D. R. Williams

CHINA: Anders, Lucid, Wang

COSTA RICA: Chang-Diaz

DENMARK: Mogensen

ENGLAND: Foale, G.H. Johnson, Patrick, Peake, Sellers

FRANCE: Eyharts, Pesquet

GERMANY: Gerst, Schlegel, Thorne

INDIA: Chawla

ITALY: Cristoforetti, M. Collins, Nespoli, Parmitano, Vittori

JAPAN: Doi, Furukawa, Hoshide, Kanai, Noguchi, Onishi, Wakata, Yui

NETHERLANDS: Kuipers, Van Den Berg

PACIFIC ISLANDS: Newman

PERU: Noriega

SPAIN: Lopez-Alegria

SWITZERLAND: Nicollier

SWEDEN: Fuglesang

TAIWAN: Lindgren

VIETNAM: Trinh

WALES: Llewellyn

*See biographical sketches for city.

9.0 ASTRONAUTS' SCOUTING RECORDS

EAGLE:

Chamitoff, Forrester, Fossum, G.H. Johnson, Lindgren, Pettit

Adamson, Armstrong, Bagian, Bluford, Bowersox, Brady, Carr, Covey, Creighton, Duke, Fullerton, W. Gregory, Hoffman, Jones, Lee, Lind, Lindsey, Llewellyn (King's Scout, U.K.), Lovell, McCulley, O'Leary, Oswald, Parazynski, Reightler, Searfoss, Tanner, Truly

Carter, Chaffee, Eisele, Griggs, McCool, Onizuka, See, D. Walker

GIRL SCOUT:

Aunon, A. Fisher, Hire, K.M. McArthur, Metcalf-Lindenburger, Rubins

Cagle, E. Collins, Currie, Davis, Higginbotham, Lawrence, Magnus, Morgan, Nowak, Stefanyshyn-Piper, Helms, Jernigan, Kilrain (Still), Seddon, Sullivan, K. Thornton, Weber

Clark, Janice Voss

CURRENT-REGULAR
FORMER-*ITALICS*
DECEASED **BOLD**

10.0 MILITARY ASTRONAUTS**10.1 UNITED STATES AIR FORCE**

Akers, Thomas D.	Former	Lt. Colonel	USAF Retired
Aldrin, Edwin (Buzz)	Former	Colonel	USAF Retired
Anderson, Michael P.	Deceased	Lt. Colonel	USAF
Archambault, Lee J.	Former	Colonel	USAF
Bassett, Charles A	Deceased	Captain	USAF
Behnken, Robert (Bob)	Current	Lt. Colonel	USAF
Blaha, John E.	Former	Colonel	USAF Retired
Bloomfield, Michael (Mike)	Former	Colonel	USAF Retired
Bluford, Guion S.	Former	Colonel	USAF Retired
Bobko, Karol J.	Former	Colonel	USAF Retired
Boe, Eric	Current	Colonel	USAF Retired
Borman, Frank	Former	Colonel	USAF Retired
Bridges, Roy D.	Former	Major General	USAF Retired
Brown, Curtis (Curt)	Former	Colonel	USAF Retired
Brown, Mark N.	Former	Colonel	USAF Retired
Cagle, Yvonne	Management	Colonel	USAF
Carey, Duane G.	Former	Lt. Colonel	USAF Retired
Casper, John	Management	Colonel	USAF Retired
Chilton, Kevin P.	Former	General	US Retired
Coleman, Catherine (Cady)	Current	Colonel	USAF Retired
Collins, Eileen M.	Former	Colonel	USAF Retired
Cooper, L. Gordon (Gordo)	Deceased	Colonel	USAF Retired
Covey, Richard O.	Former	Colonel	USAF Retired
Drew, B. Alvin (Al)	Current	Colonel	USAF Retired
Duffy, Brian	Former	Colonel	USAF Retired
Duke, Charles	Former	Brig. General	USAF Retired
Dutton, James P. (Jim)	Current	Colonel	USAF
Eisele, Donn F.	Deceased	Colonel	USAF Retired
Engle, Joe H.	Former	Major General	USAF Retired
Fabian, John M.	Former	Colonel	USAF Retired
Fincke, Edward Michael	Current	Colonel	USAF Retired
Fischer, Jack D.	Current	Lt. Colonel	USAF
Ford, Kevin A.	Current	Colonel	USAF Retired
Freeman, Theodore C.	Deceased	Captain	USAF
Fullerton, C. Gordon	Former	Colonel	USAF Retired
Garan, Ronald J. (Ron)	Current	Colonel	USAF Retired
Gardner, Guy S.	Former	Colonel	USAF Retired
Givens, Edward G.	Deceased	Major General	USAF
Good, Michael	Management	Colonel	USAF Retired
Grabe, Ronald J. (Ron)	Former	Colonel	USAF Retired

Gregory, Frederick D. (Fred)	Former	Colonel	USAF Retired
Gregory, William G. (Bill)	Former	Lt. Colonel	USAF Retired
Grissom, Virgil (Gus)	Deceased	Lt. Colonel	USAF
Gutierrez, Sidney M	Former	Colonel	USAF Retired
Halsell, James D. (Jim)	Former	Colonel	USAF Retired
Hammond, L. Blaine	Former	Colonel	USAF Retired
Hartsfield, Henry (Hank)	Former	Colonel	USAF Retired
Helms, Susan J.	Former	Lt. General	USAF
Hendricks, Terence T. (Tom)	Former	Colonel	USAF Retired
Hopkins, Michael C.	Current	Colonel	USAF
Horowitz, Scott J. (Doc)	Former	Colonel	USAF Retired
Husband, Rick D.	Deceased	Colonel	USAF
Irwin, James B	Deceased	Colonel	USAF Retired
Johnson, Greg H. (Box)	Current	Colonel	USAF Retired
Kelly, James M. (Jim)	Management	Colonel	USAF Retired
Lee, Mark C.	Former	Colonel	USAF Retired
Lindsey, Steven W.	Former	Colonel	USAF Retired
Lockhart, Paul S.	Former	Colonel	USAF Retired
McDivitt, James A. (Jim)	Former	Brig. General	USAF Retired
McMonagle, James A.	Former	Colonel	USAF Retired
Meads, Carl J.	Former	Colonel	USAF Retired
Melroy, Pamela A.	Former	Colonel	USAF Retired
Mullane, Richard M. (Mike)	Former	Colonel	USAF Retired
Nagel, Steven R.	Former	Colonel	USAF Retired
Onizuka, Ellison S.	Deceased	Lt. Colonel	USAF
Peterson, Donald H. (Don)	Former	Colonel	USAF Retired
Pogur, William (Bill)	Former	Colonel	USAF Retired
Precourt, Charles J.	Former	Colonel	USAF Retired
Roosa, Stuart A.	Deceased	Colonel	USAF Retired
Ross, Jerry L.	Former	Colonel	USAF Retired
Scobee, Francis R. (Frank)	Deceased	Major General	USAF Retired
Scott, David R.	Former	Colonel	USAF Retired
Searfoss, Richard A.	Former	Colonel	USAF Retired
Shaw, Brewster H.	Former	Colonel	USAF Retired
Shriver, Loren J.	Former	Colonel	USAF Retired
Stafford, Thomas P	Former	Lt. General	USAF Retired
Virts, Terry W.	Current	Colonel	USAF
Walheim, Rex J.	Current	Colonel	USAF Retired
Walz, Carl E.	Former	Colonel	USAF Retired
White, Edward H	Deceased	Lt. Colonel	USAF
Worden, Alfred M. (Al)	Former	Colonel	USAF Retired

10.2 UNITED STATES ARMY

Adamson, James C.	Former	Colonel	USA Retired
Clifford, Michael R.	Former	Lt. Colonel	USA Retired
Creamer, Timothy J. (TJ)	Management	Colonel	USA Retired
Currie, Nancy (Sherlock)	Management	Colonel	USA Retired
Forrester, Patrick (Pat)	Management	Colonel	USA Retired
Gemar, Charles (Sam)	Former	Lt. Colonel	USA
Kimbrough, Robert Shane	Current	Colonel	USA
Kopra, Timothy (Tim)	Current	Colonel	USA Retired
McArthur, William S. (Bill)	Management	Colonel	USA Retired
Spring, Sherwood C. (Woody)	Former	Colonel	USA Retired
Stewart, Robert L.	Former	Brig. General	USA Retired
Vande Hei, Mark	Current	Colonel	USA
Voss, James S. (Jim)	Former	Colonel	USA Retired
Wheelock, Douglas H	Current	Colonel	USA
Williams, Jeffrey N. (Jeff)	Current	Colonel	USA Retired

10.3 UNITED STATES COAST GUARD

Burbank, Daniel C. (Dan)	Current	Captain	USCG Retired
Melnick, Bruce E.	Former	Commander	USCG Retired

10.4 UNITED STATES MARINE CORPS

Allen, Andrew M.	Former	Lt. Colonel	USMC Retired
Bolden, Charles	Management	Major General	USMC Retired
Brand, Vance D	Former	unknown	USMC Retired
Bresnik, Randolph (Randy)	Current	Colonel	USMC
Buchli, James (Jim)	Former	Colonel	USMC Retired
Cabana, Robert	Management	Colonel	USMC Retired
Cameron, Kenneth (Ken)	Former	Colonel	USMC Retired
Carr, Gerald P. (Gerry)	Former	Colonel	USMC Retired
Glenn, John H.	Former	Colonel	USMC Retired
Hilmers, David C.	Former	Colonel	USMC Retired
Hobaugh, Charles O.	Former	Colonel	USMC Retired
Hurley, Douglas G. (Doug)	Current	Colonel	USMC
Loria, Christopher J. (Gus)	Former	Colonel	USMC Retired
Lousma, Jack R.	Former	Colonel	USMC Retired
Noriega, Carlos I.	Former	Lt. Colonel	USMC Retired
O'Connor, Bryan D.	Former	Colonel	USMC Retired
Overmyer, Robert F.	Deceased	Colonel	USMC Retired
Springer, Robert C.	Former	Colonel	USMC Retired
Sturckow, Frederick J. (CJ)	Former	Colonel	USMC Retired
Wilcutt, Terrence W. (Terry)	Management	Colonel	USMC Retired
Williams, Clifford C	Deceased	Major	USMC
Zamka, George D.	Former	Colonel	USMC Retired
Cunningham, Walter (Walt)	Former	Colonel	USMC Resrv/Retir

10.5 UNITED STATES NAVY

Altman, Scott D.	Former	Captain	USN Retired
Antonelli, Dominic (Tony)	Current	Captain	USN
Ashby, Jeffrey S.	Former	Captain	USN Retired
Baker, Michael	Management	Captain	USN Retired
Bean, Alan	Former	Captain	USN Retired
Bowen, Stephen G.	Current	Captain	USN Retired
Bowersox, Kenneth D. (Ken)	Former	Captain	USN Retired
Brady, Charles E.	Deceased	Captain	USN
Brandenstein, Daniel (Dan)	Former	Captain	USN Retired
Brown, David M.	Deceased	Captain	USN
Bursch, Daniel W. (Dan)	Former	Captain	USN Retired
Carpenter, M. Scott	Former	Commander	USN Retired
Carter, Manley (Sonny)	Deceased	Captain	USN
Cassidy, Christopher (Chris)	Current	Commander	USN
Cernan, Eugene A.	Former	Captain	USN Retired
Chaffee, Roger B.	Deceased	Lt. Commander	USN
Clark, Laurel B.	Deceased	Captain	USN
Coats, Michael	Former	Captain	USN Retired
Conrad, Charles	Deceased	Captain	USN
Creighton, John O.	Former	Captain	USN Retired
Crippen, Robert (Crip)	Former	Captain	USN Retired
Curbeam, Robert L.	Former	Captain	USN Retired
Culbertson, Frank L.	Former	Captain	USN Retired
Edwards, Joe F.	Former	Commander	USN Retired
Evans, Ronald E	Deceased	Captain	USN Retired
Ferguson, Christopher J.	Former	Captain	USN Retired
Foreman, Michael (Mike)	Management	Captain	USN Retired
Frick, Stephen (Steve)	Management	Captain	USN Retired
Gardner, Dale A	Former	Captain	USN Retired
Gibson, Robert L. (Hoot)	Former	Captain	USN Retired
Gordon, Richard	Former	Captain	USN Retired
Gorie, Dominic	Former	Captain	USN Retired
Ham, Kenneth T. (Ken)	Former	Captain	USN
Hauck, Frederick H. (Rick)	Former	Captain	USN Retired
Herrington, John B.	Former	Commander	USN Retired
Jett, Brent W.	Former	Captain	USN Retired
Johnson, Gregory C. (RayJ)	Management	Captain	USN Retired
Kelly, Mark E.	Former	Captain	USN Retired
Kelly, Scott	Current	Captain	USN Retired
Kerwin, Joseph P. (Joe)	Former	Captain	USN Retired
Kilrain (Still), Susan L.	Former	Commander	USN Retired
Lawrence, Wendy B.	Former	Captain	USN Retired
Leestma, David	Management	Captain	USN Retired

Linenger, Jerry M.	Former	Captain	USN Retired
Lopez-Alegria, Michael (L.A.)	Former	Captain	USN Retired
Lovell, James A. (Jim)	Former	Captain	USN Retired
Mattingly, Thomas K.	Former	Rear Admiral	USN Retired
McBride, Jon A.	Former	Captain	USN Retired
McCandless, Bruce	Former	Captain	USN Retired
McCool, William (Willie)	Deceased	Commander	USN
McCulley, Michael J.	Former	Captain	USN Retired
Mitchell, Edger D.	Former	Captain	USN Retired
Morin, Lee M.	Management	Captain	USN
Nowak, Lisa M.	Former	Commander	USN Retired
Oefelein, William A.	Former	Commander	USN Retired
Poindexter, Alan G. (Dex)	Former	Commander	USN
Readdy, William F. (Bill)	Former	Captain	USN Retired
Reightler, Kenneth S. (Ken)	Former	Captain	USN Retired
Richards, Richard N.	Former	Captain	USN Retired
Rominger, Kent V.	Former	Captain	USN Retired
Runco, Mario	Management	Lt. Commander	USN Retired
Schirra, Walter M. (Wally)	Deceased	Captain	USN Retired
Scott, Winston E.	Former	Captain	USN Retired
Shepard, Alan B.	Deceased	Rear Admiral	USN Retired
Shepherd, William M. (Bill)	Former	Captain	USN Retired
Smith, Michael J.	Deceased	Captain	USN
Stefanyshyn-Piper, Heidemarie	Former	Captain	USN
Thorne, Stephen D.	Deceased	Lt. Commander	USN
Thuot, Pierre J.	Former	Commander	USN
Tingle, Scott D.	Current	Commander	USN
Truly, Richard H. (Dick)	Former	Vice Admiral	USN Retired
Walker, David M.	Deceased	Captain	USN Retired
Weitz, Paul J.	Former	Captain	USN Retired
Wetherbee, James D. (Jim)	Former	Captain	USN Retired
Williams, Donald E.	Former	Captain	USN Retired
Williams, Sunita	Current	Captain	USN
Wilmore, Barry E.	Current	Captain	USN
Wiseman, G. Reid (Reid)	Current	Lt. Commander	USN Retired
Woodward, Neil W.	Former	Commander	USN Retired
Young, John W.	Former	Captain	USN Retired
Cockrell, Kenneth (Ken)	Management	Captain	USNReserves
Hire, Kathryn (Kay)	Management	Captain	USNReserves
Phillips, John L.	Former	Captain	USNReserves

11.0 U.S. SPACE PROGRAM HUMAN SPACE FLIGHT LOG**11.1 PRE-SHUTTLE SPACE FLIGHT****MERCURY-REDSTONE**

Mercury 3	Alan Shepard	5/5/61	15 min – 28 sec
Mercury 4	Virgil Grissom	7/21/61	15 min – 37 sec
Mercury 6	John Glenn	2/20/62	4 hr – 55 min – 23 sec
Mercury 7	Scott Carpenter	5/24/62	4 hr – 56 min – 05 sec
Mercury 8	Walter Schirra	10/3/62	9 hr – 13 min – 11 sec
Mercury 9	Gordon Cooper	5/15-16/63	34 hr – 19 min – 49 sec

GEMINI-TITAN

Gemini III	Virgil Grissom John Young	3/23/65	4 hr – 52 min – 31 sec
Gemini IV	James McDivitt Edward White	6/3-7/65	97 hr – 56 min – 12 sec
Gemini V	L. Gordon Cooper Charles Conrad	8/21-29/65	190 hr – 55 min – 14 sec
Gemini VII	Frank Borman James Lovell	12/4-18/65	330 hr – 35 min – 01 sec
Gemini VI-A	Walter Schirra Thomas Stafford	12/15-16/65	25 hr – 51 min – 24 sec
Gemini VIII	Neil Armstrong David Scott	3/16/66	10 hr – 41 min – 26 sec
Gemini IX-A	Thomas Stafford Eugene Cernan	6/3-6/66	72 hr – 20 min – 50 sec
Gemini X	John Young Michael Collins	7/18-21/66	70 hr – 46 min – 39 sec
Gemini XI	Charles Conrad Richard Gordon	9/12-15/66	71 hr – 17 min – 08 sec
Gemini XII	James Lovell Buzz Aldrin	11/11-15/66	94 hr – 34 min – 31 sec

APOLLO-SATURN

Apollo 7	Walter Schirra Donn Eisele Walter Cunningham	10/11-22/68	260 hr – 09 min – 03 sec
Apollo 8	Frank Borman James Lovell William Anders	12/21-27/68	147 hr – 00 min – 42 sec
Apollo 9	James McDivitt David Scott Rusty Schweickart	3/3-13/69	241 hr – 00 min – 54 sec
Apollo 10	Thomas Stafford John Young Eugene Cernan	5/18-26/69	192 hr – 23 min – 23 sec
Apollo 11	Neil Armstrong Michael Collins Buzz Aldrin	7/16-24/69	195 hr – 18 min – 35 sec
Apollo 12	Charles Conrad Richard Gordon Al Bean	11/14-24/69	244 hr – 36 min – 24 sec
Apollo 13	James Lovell John Swigert Fred Haise	4/11-17/70	142 hr – 54 min – 41 sec
Apollo 14	Al Shepard Stuart Roosa Edgar Mitchell	1/31-2/9/71	216 hr – 01 min – 58 sec
Apollo 15	David Scott Al Worden James Irwin	7/26-8/7/71	305 hr – 11 min – 53 sec
Apollo 16	John Young Ken Mattingly Charlie Duke	4/16-27/72	265 hr – 51 min – 05 sec
Apollo 17	Eugene Cernan Ronald Evans Harrison Schmitt	12/7-19/72	301 hr – 51 min – 59 sec

SKYLAB

Skylab SL-2	Charles Conrad Joseph Kerwin Paul Weitz	5/25-6/22/73	672 hr – 49 min – 49 sec
Skylab SL-3	Al Bean Owen Garriott Jack Lousma	7/28-9/25/73	1427 hr – 09 min – 04 sec
Skylab SL-4	Gerald Carr Edward Gibson William Pogue	11/16/73 – 2/8/74	2017 hr – 16 min – 00 sec

APOLLO-SOYUZ TEST PROJECT (ASTP)

	Thomas Stafford Vance Brand Donald Slayton	7/15-24/75	223 hours – 28 min – sec
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11.2 SHUTTLE MISSIONS

Flight # Vehicle	Crew - Designation (STS seat/flts)	Duration Days/Hrs/Min. Orbits Miles, sm	Date Launch Landing	Time Launch Landing (Main gear)
STS-1 Columbia	Young, John W. - CDR Crippen, Robert L. "Bob" - PLT	02/06/20 36 933,757	Apr-12-81 Apr-14-81 EAFB	6:00 a.m. CST 12:20 p.m. CST
STS-2 Columbia	Engle, Joe H. - CDR Truly, Richard H. "Dick" - PLT	02/06/13 36 933,757	Nov-12-81 Nov-14-81 EAFB	9:10 a.m. CST 3:23 p.m. CST
STS-3 Columbia	Lousma, Jack - CDR Fullerton, Gordon - PLT	08/00/04 129 3,900,000	Mar-22-82 Mar-30-82 White Sands	10:00 a.m. CST 10:04 a.m. CST Space Harbor, NM
STS-4 Columbia	Mattingly, T.K. - CDR Hartsfield, Henry "Hank" - PLT	07/01/11 112 2,900,000	Jun-27-82 Jul-04-82 EAFB	09:59:59 a.m. CDT 11:11:11 a.m. CDT
STS-5 Columbia	Brand, Vance D. - CDR Overmyer, Robert F. - PLT Allen, Joseph "Joe" - MS Lenoir, William "Bill" - MS	5/02/14 81 1,850,000	Nov-11-82 Nov-16-82 EAFB	06:19:00 a.m. CST 08:33:27 a.m. CST
STS-6 Challenger	Weitz, Paul J. "PJ" - CDR Bobko, Karol J. "Bo" - PLT Peterson, Donald H. "Don" - MS Musgrave, F. Story - MS	5/00/23 80 1,820,000	Apr-04-83 Apr-09-83 EAFB	01:30:00 p.m. CST 01:53:42 p.m. CST
STS-7 Challenger	Crippen, Robert L. "Bob" - CDR Hauck, Frederick H. "Rick" - PLT Ride, Sally K. - MS Fabian, John M. - MS Thagard, "Norm" - MS	06/02/23 98 2,220,000	Jun-18-83 Jun-24-83 EAFB	06:33:00 a.m. CDT 08:56:59 a.m. CDT
STS-8 Challenger	Truly, Richard H. "Dick" - CDR Brandenstein, Dan" - PLT Gardner, Dale A. - MS Bluford, Guion S. "Guy" - MS Thornton, William E. "Bill" - MS	6/01/08 98 2,220,000	Aug-30-83 Sep-05-83 EAFB	01:32:00 a.m. CDT 02:40:40 a.m. CDT
STS-9 Columbia	Young, John W. - CDR (2/6) Shaw, Brewster H. Jr. - PLT Garriott, Owen K. - MS Parker, Robert A. - MS	10/7/47 148 3,330,000	Nov-28-83 Dec-08-83 EAFB	10:00:00 a.m. CST 05:47:24 p.m. CST

	Lichtenberg, Byron - PS Merbold, Ulf - PS (Germany)			
41-B Challenger	Brand, Vance D. - CDR Gibson, Robert L. "Hoot" - PLT McCandless II, Bruce - MS Stewart, Robert L. - MS McNair, Ronald E. - MS	7/23/15 127 2,870,000	Feb-03-84 Feb-11-84 KSC	07:00:00 a.m. CST 06:15:55 a.m. CST
41-C Challenger	Crippen, Robert L. "Bob" - CDR Scobee, Francis R. "Dick" - PLT Nelson, George D. "Pinky" - MS Van Hoften, James D. "Ox" - MS Hart, Terry J. "TJ" - MS	6/23/40 107 2,880,000	Apr-06-84 Apr-13-84 EAFB	07:58:00 a.m. CST 07:38:05 a.m. CST
41-D Discovery	Hartsfield, "Hank" - CDR Coats, Michael L. "Mike" - PLT Resnik, Judith A. - MS Hawley, Steven A. - MS Mullane, "Mike" - MS Walker, Charles D. - PS	06/00:56:04 144:56:04 97 2,210,000	Aug-30-84 Sep-05-84 EAFB	07:41:53 a.m. CDT 08:37:57 a.m. CDT
41-G Challenger	Crippen, Robert L. "Bob" - CDR McBride, Jon A. - PLT Sullivan, Kathryn D. - MS Ride, Sally K. - MS Leestma, David D. - MS Garneau, Marc - PS (Canada) Scully-Power, Paul D. - PS	08/05/23 133 3,400,000	Oct-05-84 Oct-13-84 KSC	06:03:00 a.m. CDT 11:26:37 a.m. CDT
51-A Discovery	Hauck, "Rick" - CDR Walker, David M. - PLT Fisher, Anna L. - MS Gardner, Dale A. - MS Allen, Joseph P. - MS	07/23/44 127 2,870,000	Nov-08-84 Nov-16-84 KSC	06:15:00 CST 05:59:56 CST
51-C Discovery	Mattingly, "TK" - CDR Shriver, Loren J. - PLT Onizuka, Ellison S. - MS Buchli, James F. "Jim" - MS Payton, Gary E. - PS (DOD)	3/01/33 48 1,242,566	Jan-24-85 Jan-27-85 KSC	1:50 p.m. CST 3:23:27 p.m. CST
51-D Discovery	Bobko, Karol J. "Bo" CDR Williams, Donald E. - PLT Seddon, M. Rhea - MS Hoffman, Jeffrey A. - MS Griggs, S. David - MS Walker, Charles D. - PS Garn, E. J. "Jake" - PS (U.S. Sen-UT)	6/23/54 110 2,889,785	Apr-12-85 Apr-19-85 KSC	07:59:05 a.m. CST 07:54:24 a.m. CST

51-B	Overmyer, "Bob" - CDR	7/00/08	Apr-29-85	11:02:18 a.m. CDT
SL-3	Gregory, "Fred" - PLT	110	May-06-85	11:11:05 a.m. CDT
Challenger	Lind, Don L. - MS	2,900,000	EAFB	
	Thagard, "Norm" - MS			
	Thornton, William E. - MS			
	van den Berg, Lodewijk - PS			
	Wang, Taylor G. - PS			
51-G	Brandenstein, "Dan" - CDR	07/01/39	Jun-17-85	06:33:00 a.m. CDT
Discovery	Creighton, John O. "JO" - PLT	112	Jun-24-85	08:12:00 a.m. CDT
	Lucid, Shannon W. - MS	2,916,127	EAFB	
	Fabian, John M. - MS			
	Nagel, Steven R. - MS			
	Baudry, Patrick - PS (France)			
	Al-Saud, Sultan Salman Abdelazize			
	- PS (Saudi Arabia)			
51-F	Fullerton, C. Gordon - CDR	07/22/45	Jul-29-85	04:00:00 p.m. CDT
Challenger	Bridges, Roy D. - PLT	126	Aug-06-85	02:45:26 p.m. CDT
SL-2	Musgrave, F. Story - MS	2,850,000	EAFB	
	England, "Tony" - MS			
	Henize, Karl G. - MS			
	Acton, Loren W. - PS			
	(Lockheed)			
	Bartoe, John-David - PS (US Navy Civ.)			
51-I	Engle, Joe H. CDR	07/03/17	Aug-27-85	05:58:01 a.m. CDT
Discovery	Covey, Richard O. "Dick" - PLT	111	Sep-03-85	08:15:43 a.m. CDT
	Van Hoften, James D. "Ox" - MS	2,500,000	EAFB	
	Lounge, John M. "Mike" - MS			
	Fisher, William F. "Bill" - MS			
51-J	Bobko, Karol J. "Bo" - CDR	04/01/44	Oct-03-85	10:15:30 a.m. CDT
Atlantis	Grabe, Ronald J. - PLT	65	Oct-07-85	12:00:08 p.m. CDT
	Hilmers, David C. - MS	1,682,641	EAFB	
	Stewart, Robert C. - MS			
	Pailes, William A. - PS (Maj., Air Force)			
61-A	Hartsfield, "Hank" - CDR	07/00/44	Oct-30-85	11:00:00 a.m. CST
Challenger	Nagel, Steven R. - PLT	110	Nov-06-85	11:44:51 a.m. CST
	Buchli, James F. "Jim" - MS	2,501,290	EAFB	
	Bluford, Guion S. "Guy" - MS			
	Dunbar, Bonnie J. - MS			
	Furrer, Reinhard - PS (DFVLR - Germany)			
	Messerschmid, Ernst - PS (DFVLR - Germany)			
	Ockels, Wubbo J. - PS (ESA - The Netherlands)			
61-B	Shaw, Brewster H. - CDR	06/21/04	Nov-26-85	06:29:00 p.m. CST
Atlantis	O'Connor, Bryan D. - PLT	108	Dec-03-85	03:33:49 p.m. CST
	Cleave, Mary L. - MS	2,466,956	EAFB	
	Spring, "Woody" - MS			

	Ross, Jerry L. - MS			
	Neri Vela, Rodolfo - PS (Mexico)			
	Walker, Charles D. - PS			
61-C	Gibson, Robert L. "Hoot" - CDR	06/02/03	Jan-12-86	05:55:00 a.m. CST
Columbia	Bolden, Charles F. - PLT	96	Jan-18-86	07:58:51 p.m. CST
	Chang-Diaz, Franklin R. - MS	2,197,305	EAFB	
	Hawley, Steven A. - MS			
	Nelson, George D. "Pinky" - MS			
	Center, Robert J. - PS (RCA Corp.)			
	Nelson, Bill - PS (U.S. Rep-FL)			
51-L	Scobee, Francis R. "Dick" - CDR	0/00/01	Jan-28-86	10:38:00 a.m. CST
Challenger	Smith, Michael J. - PLT			
	Resnik, Judith A. "Judy" - MS			
	Onizuka, Ellison S. - MS			
	McNair, Ronald E. - MS			
	Jarvis, Gregory - PS (Hughes)			
	McAuliffe, Sharon C. "Christa" - SFP (Teacher)			
STS-26	Hauck, Frederick H. "Rick" - CDR	04/01/00	Sep-29-88	10:37:00 a.m. CDT
Discovery	Covey, Richard O. "Dick" - PLT	64	Oct-03-88	11:37:57 a.m. CDT
	Lounge, John M. "Mike" - MS	1,430,505	EAFB	
	Nelson, George D. "Pinky" - MS			
	Hilmers, David C. - MS			
STS-27	Gibson, Robert L. "Hoot" - CDR	04/09/06	Dec-02-88	08:30:34 a.m. CST
Atlantis	Gardner, Guy S. - PLT	70	Dec-06-88	05:36:53 p.m. CST
	Mullane, Richard M. "Mike" - MS	1,812,075	EAFB	
	Ross, Jerry L. - MS			
	Shepherd, William M. "Bill" - MS			
STS-29	Coats, Michael L. "Mike" - CDR	04/23/39	Mar-13-89	08:57:00 a.m. CST
Discovery	Blaha, John E. - PLT	80	Mar-18-89	08:36:41 a.m. CST
	Bagian, James P. "Jim" - MS	1,800,000	EAFB	
	Buchli, James F. "Jim" - MS			
	Springer, Robert C. - MS			
STS-30	Walker, David M. - CDR	04/00/56	May-04-89	01:46:58 p.m. CDT
Atlantis	Grabe, Ronald J. - PLT	64	May-08-89	02:44:33 p.m. CDT
	Thagard, Norm" - MS	1,477,500	EAFB	
	Cleave, Mary L. - MS			
	Lee, Mark C. - MS			
STS-28	Shaw, Brewster H. - CDR	05/01/00	Aug-08-89	07:37:00 a.m. CDT
Columbia	Richards, "Dick" - PLT	80	Aug-13-89	08:37:53 a.m. CDT
	Adamson, James C. "Jim" - MS	2,070,943	EAFB	
	Leestma, David C. - MS			
	Brown, Mark N. - MS			

STS-34 Atlantis	Williams, Donald E. - CDR McCulley, "Mike" - PLT Chang-Diaz, Franklin R. - MS Lucid, Shannon W. - MS Baker, Ellen S. - MS	04/23/41 79 1,800,000	Oct-18-89 Oct-23-89 EAFB	11:53:40 a.m. CDT 11:34:00 a.m. CDT
STS-33 Discovery	Gregory, "Fred" - CDR Blaha, John E. - PLT Musgrave, F. Story - MS Carter, Manley L. "Sonny" - MS Thornton, Kathryn C. "KT" - MS	05/00/07 79 2,045,056	Nov-22-89 Nov-27-89 EAFB	06:23:30 p.m. CST 06:31:32 p.m. CST
STS-32 Columbia	Brandenstein, "Dan" - CDR Wetherbee, "Jim" - PLT Dunbar, Bonnie J. - MS Low, G. David - MS Ivins, Marsha S. - MS	10/21/01 173 4,509,972	Jan-09-90 Jan-20-90 EAFB	06:35:00 a.m. CST 03:36:38 a.m. CST
STS-36 Atlantis	Creighton, John O. "JO" - CDR Casper, John H. - PLT Mullane, "Mike" - MS Hilmers, David C. - MS Thuot, Pierre J. - MS	04/10/19 71 1,837,962	Feb-28-90 Mar-04-90 EAFB	01:50:22 a.m. CST 12:09:37 p.m. CST
STS-31 Discovery	Shriver, Loren J. - CDR Bolden, Charles F. - PLT Hawley, Steven A. - MS McCandless II, Bruce - MS Sullivan, Kathryn D. - MS	05/01/16 76 2,068,213	Apr-24-90 Apr-29-90 EAFB	07:33:51 a.m. CDT 08:49:57 a.m. CDT
STS-41 Discovery	Richards, "Dick" - CDR Cabana, Robert D. "Bob" - PLT Shepherd, William M. "Bill" - MS Melnick, Bruce E. - MS Akers, Thomas D. - MS	04/02/10 66 1,707,445	Oct-06-90 Oct-10-90 EAFB	06:47:15 a.m. CDT 08:57:18 a.m. CDT
STS-38 Atlantis	Covey, Richard O. "Dick" - CDR Culbertson, Frank L. - PLT Springer, Robert C. - MS Meade, Carl J. - MS Gemar, Charles D. "Sam" - MS	04/21/54 79 2,045,056	Nov-15-90 Nov-20-90 KSC	05:48:15 p.m. CST 03:42:43 p.m. CST
STS-35 Columbia	Brand, Vance D. - CDR Gardner, Guy S. - PLT Hoffman, Jeffrey A. - MS Lounge, John M. "Mike" - MS Parker, Robert Allan Ridley - MS Durrance, Samuel T. - PS Parise, Ronald A. - PS	08/23/05 142 3,728,636	Dec-02-90 Dec-10-90 EAFB	12:49:01 a.m. CST 11:54:09 p.m. CST

STS-37 Atlantis	Nagel, Steven R. - CDR Cameron, "Ken" - PLT Ross, Jerry L. - MS Apt, Jay - MS Godwin, Linda M. - MS	05/23/32 93 2,487,075	Apr-05-91 Apr-11-91 EAFB	08:22:45 a.m. CST 08:55:29 a.m. CDT
STS-39 Discovery	Coats, Michael L. "Mike" - CDR Hammond, L. Blaine - PLT Bluford, Guion S. - MS Harbaugh, Gregory J. - MS Hieb, Richard J. "Rick" - MS McMonagle, Donald R. - MS Veach, Charles Lacy - MS	08/07/22 134 3,475,000	Apr-28-91 May-06-91 KSC	06:33:14 a.m. CDT 01:55:35 p.m. CDT
STS-40 Columbia	O'Connor, Bryan D. - CDR Gutierrez, Sidney M. - PLT Seddon, M. Rhea - MS Bagian, James P. "Jim" - MS Jernigan, "Tammy" - MS Gaffney, F. Drew - PS Hughes-Fulford, Millie - PS	09/2/14 146 3,290,226	Jun-05-91 Jun-14-91 EAFB	08:24:51 a.m. CDT 10:39:11 a.m. CDT
STS-43 Atlantis	Blaha, John E. - CDR Baker, Michael A. "Mike" - PLT Lucid, Shannon W. - MS Adamson, James C. "Jim" - MS Low, G. David - MS	08/21/21 142 3,700,400	Aug-02-91 Aug-11-91 KSC	10:02:00 a.m. CDT 07:23:25 a.m. CDT
STS-48 Discovery	Creighton, John O. "JO" - CDR Reightler, Kenneth S. - PLT Buchli, James F. "Jim" - MS Gemar, Charles D. "Sam" - MS Brown, Mark N. - MS	05/08/27 81 2,193,670	Sep-12-91 Sep-18-91 EAFB	06:11:04 p.m. CDT 02:38:38 a.m. CDT
STS-44 Atlantis	Gregory, "Fred" - CDR Henricks, "Tom" - PLT Musgrave, F. Story - MS Runco, Jr., Mario - MS Voss, James S. "Jim" - MS Hennen, Thomas J. - PS (CWO4, Army)	06/22/50 110 2,890,067	Nov-24-91 Dec-01-91 EAFB	05:44:00 pm CST 04:34:42 pm CST
STS-42 Discovery	Grabe, Ronald J. - CDR Oswald, Stephen S. - PLT Thagard, "Norm" - MS Hilmers, David C. - MS Readdy, William F. "Bill" - MS Bondar, Roberta L. - PS (Canada) Merbold, Ulf D. - PS (Germany)	08/01/14 128 3,349,830	Jan-22-92 Jan-30-92 EAFB	08:52:33 am CST 10:07:18 am CST

STS-45 Atlantis	Bolden, Charles F. - CDR	08/22/09	Mar-24-92	7:13:40 am CST
	Duffy, Brian - PLT	143	Apr-02-92	5:23:06 am CST
	Sullivan, Kathryn D. - MS (PYLD CDR)	3,274,946	KSC	
	Foale, C. Michael - MS			
	Leestma, David C. - MS			
	Lichtenberg, Byron K. - PS			
	Frimout, Dirk D. - PS (Belgium)			
STS-49 Endeavour	Brandenstein, "Dan" - CDR	08/21/17	May-07-92	6:40:00 pm CDT
	Chilton, Kevin P. - PLT	141	May-16-92	3:57 pm CDT
	Thuot, Pierre J. - MS (PYLD CDR)	3,969,019	EAFB	
	Thornton, Kathryn C. "KT" - MS			
	Hieb, Richard J. "Rick" - MS			
	Akers, Thomas D. - MS			
	Melnick, Bruce E. - MS			
STS-50 Columbia	Richards, "Dick" - CDR	13/19/30	Jun-25-92	11:12 a.m. CDT
	Bowersox, "Ken" - PLT	221	Jul-09-92	6:42 a.m. CDT
	Dunbar, Bonnie J. - MS (PYLD CDR)	5,758,332	KSC	
	Baker, Ellen S. - MS			
	Meade, Carl J. - MS			
	DeLucas, Lawrence J. - PS			
	Trinh, Eugene H. - PS			
STS-46 Atlantis	Shriver, Loren J. - CDR	07/2316	Jul-31-92	8:57 a.m. CDT
	Allen, Andrew M. - PLT	127	Aug-08-92	8:12 a.m. CDT
	Hoffman, Jeffrey A. - MS (PYLD CDR)	3,321,007	KSC	
	Chang-Diaz, Franklin R. - MS			
	Nicollier, Claude - MS (Switzerland)			
	Ivins, Marsha S. - MS			
	Malerba, Franco - PS (Italy)			
STS-47 Endeavour	Gibson, Robert L. "Hoot" - CDR	7/22/30	Sep-12-92	9:23 a.m. CDT
	Brown, Curtis L. "Curt" - PLT	127	Sep-20-92	7:53 a.m. CDT
	Lee, Mark C. - MS1 (PYLD CDR)	3,310,922	KSC	
	Apt, Jay - MS2			
	Davis, N. Jan - MS3			
	Jemison, Mae C. - MS4			
	Mohri, Mamoru - PS1 (Japan)			
STS-52 Columbia	Wetherbee, "Jim" - CDR	9/20/56	Oct-22-92	12:09 p.m. CDT
	Baker, Michael A. "Mike" - PLT	159	Nov-01-92	8:05 a.m. CST
	Veach, Charles Lacy - MS1	4,129,028	KSC	
	Shepherd, "Bill" - MS2			
	Jernigan, "Tammy" - MS3			
	MacLean, Steve PS1 (Canada)			

STS-53 Discovery	Walker, David M. - CDR	7/07/19	Dec-02-92	7:24 a.m. CST
	Cabana, Robert D. "Bob" - PLT	116	Dec-09-92	2:43 p.m. CST
	Bluford, Guion S. "Guy" - MS1	3,034,680	EDW	
	Voss, James S. "Jim" - MS2			
	Clifford, "Rich" - MS3			
STS-54 Endeavour	Casper, John H. - CDR	5/23/38	Jan-13-93	7:59 a.m. CST
	McMonagle, Donald R. - PLT	96	Jan-19-93	7:38 a.m. CST
	Runco, Jr., Mario - MS1	2,501,277	KSC	
	Harbaugh, "Greg" - MS2			
	Helms, Susan J. - MS3			
STS-56 Discovery	Cameron, "Ken" - CDR	9/6/9	Apr-09-93	12:29 a.m. CDT
	Oswald, Stephen S. - PLT	148	Apr-17-93	06:37 a.m. CDT
	Foale, C. Michael - MS1	3,853,997	KSC	
	Cockrell, "Ken" - MS2			
	Ochoa, Ellen - MS3			
STS-55 Columbia	Nagel, Steven R. - CDR	9/23/39	Apr-26-93	09:50 a.m. CDT
	Henricks, "Tom" - PLT	160	May-06-93	09:30 a.m. CDT
	Ross, Jerry L. - MS1	4,164,183	EAFB	
	Precourt, Charles J. - MS2			
	Harris, Jr., Bernard A. - MS3			
	Walter, Ulrich - PS1 (Germany)			
	Schlegel, Hans William - PS2 (Germany)			
STS-57 Endeavour	Grabe, Ronald J. - CDR	9/23/44	Jun-21-93	08:07 a.m. CDT
	Duffy, Brian - PLT	155	Jul-01-93	07:52 a.m. CDT
	Low, G. David - MS1	4,118,037	KSC	
	(Currie) Sherlock, Nancy - MS2			
	Wisoff, Peter J.K. "Jeff" - MS3			
STS-51 Discovery	Voss, Janice E. - MS4			
	Culbertson, Jr., Frank L. - CDR	9/20/11	Sep-12-93	06:45 a.m. CDT
	Readdy, William F. "Bill" - PLT	158	Sep-22-93	02:56 a.m. CDT
	Newman, James H. "Jim" - MS1	4,106,411	KSC	
	Bursch, Daniel W. - MS2			
STS-58 Columbia	Walz, Carl E. - MS3			
	Blaha, John E. - CDR	14/00/12	Oct-18-93	09:53 a.m. CDT
	Searfoss, Richard A. - PLT	225	Nov-01-93	09:06 a.m. CST
	Seddon, M. Rhea - MS1 (PYLD CDR)	5,840,450	EDW	
	McArthur, William S. "Bill" - MS2			
	Wolf, David A. - MS3			
STS-61 Endeavour	Lucid, Shannon W. - MS4			
	Fettman, Martin J. - PS			
	Covey, Richard O. "Dick" - CDR	10/19/58	Dec-02-93	03:27 a.m. CST
Bowersox, "Ken" - PLT	163	Dec-12-93	11:26 p.m. CST	
		KSC		

	Musgrave, F. Story - MS4 (PYLD CDR)			
	Thornton, Kathryn C. "KT" - MS1	4,433,772		
	Nicollier, Claude - MS2			
	Hoffman, Jeffrey A. - MS3			
	Akers, Thomas D. - MS5			
STS-60	Bolden, Jr., Charles F. - CDR	8/07/09	Feb-03-94	06:10 a.m. CST
Discovery	Reightler, Jr., Kenneth S. - PLT	130	Feb-11-94	01:19 p.m. CST
	Chang-Diaz, Franklin R. - MS3 (PYLD CDR)	3,439,704	KSC	
	Davis, N. Jan - MS1			
	Sega, Ronald M. - MS2			
	Krikalev, Sergei K. - MS4 (Russia)			
STS-62	Casper, John H. - CDR	13/23/16	Mar-04-94	07:53 a.m. CST
Columbia	Allen, Andrew M. - PLT	224	Mar-18-94	07:09 a.m. CST
	Thout, Pierre J. - MS1	5,820,146	KSC	
	Gemar, Charles "Sam" - MS2			
	Ivins, Marsha S. - MS3			
STS-59	Gutierrez, Sidney M. - CDR	11/05/49	Apr-09-94	06:06 a.m. CDT
Endeavour	Chilton, Kevin P. - PLT	182	Apr-20-94	11:54 a.m. CDT
	Godwin, Linda M. - MS3 (PYLD CDR)	4,704,835	EAFB	
	Apt, Jay - MS1			
	Clifford, Michael R. "Rich" - MS2			
	Jones, Thomas D. - MS4			
STS-65	Cabana, Robert D. "Bob" - CDR	14/17/55	Jul-08-94	11:43 a.m. CDT
Columbia	Halsell, Jr., "Jim" - PLT	236	Jul-23-94	5:38 a.m. CDT
	Hieb, Richard J. "Rick" - MS1 (PYLD CDR)	6,143,846	KSC	
	Walz, Carl E. - MS2			
	Chiao, Leroy - MS3			
	Thomas, Donald A. "Don" - MS4			
	Naito-Mukai, Chiaki - PS1 (Japan)			
STS-64	Richards, "Dick" - CDR	10/22/49	Sep-09-94	5:23 p.m. CDT
Discovery	Hammond, L. Blaine - PLT	177	Sep-20-94	4:14 p.m. CDT
	Linenger, Jerry M. - MS1	4,576,174	EDW	
	Helms, Susan J. - MS2			
	Meade, Carl J. - MS3/EV2			
	Lee, Mark C. - MS4/EV1			
STS-68	Baker, "Mike" - CDR	11/05/46	Sep-30-94	6:16 a.m. CDT
Endeavour	Wilcutt, "Terry" - PLT	182	Oct-11-94	12:02 p.m. CDT
	Smith, Steven L. - MS1	4,703,000	EDW	
	Bursch, Daniel W. "Dan" - MS2			
	Wisoff, Peter J. K. "Jeff" - MS3			
	Jones, Thomas D. "Tom" - MS4 (PYLD CDR)			

STS-66	McMonagle,. "Don" - CDR	10/22/34	Nov-03-94	11 a.m. CST
Atlantis	Brown, Curtis L. "Curt" - PLT	175	Nov-14-94	9:34 a.m. CST
	Ochoa, Ellen - MS1			
	(PYLD CDR)	4,554,791	EDW	
	Tanner, Joseph R. "Joe" - MS2			
	Clervoy, Jean-Francois - MS3	(France)		
	Parazynski, Scott E. - MS4			
STS-63	Wetherbee, "Jim" - CDR	8/06/28	Feb-02-95	11:22 p.m. CST
Discovery	Collins, Eileen M. - PLT	129	Feb-11-95	5:51 a.m. CST
	Harris, Jr., Bernard A. - MS1			
	(PLD CDR)	2,922,000	KSC	
	Foale, C. Michael - MS2			
	Voss, Janice - MS3			
	Titov, Vladimir - MS4 (Russia)			
STS-67	Oswald, Stephen S. - CDR	16/15/08	Mar-02-95	12:38 a.m. CST
Endeavour	Gregory, William G. "Bill" - PLT	262	Mar-18-95	3:48 p.m. CST
	Grunsfeld, John M. - MS1	6,892,836	EDW	
	Lawrence, Wendy B. - MS2			
	Jernigan, "Tammy" - MS3			
	(PYLD CDR)			
	Durrance, "Sam" - PS1			
	Parise, Ronald - PS2			
STS-71	Gibson, Robert L. "Hoot" - CDR	9/19/22	Jun-27-95	2:32 p.m. CDT
Atlantis	Precourt, Charles J. - PLT	153	Jul-07-95	9:55 a.m. CDT
	Baker, Ellen S. - MS1	4,100,000	KSC	
	Harbaugh, "Greg" - MS2			
	Dunbar, Bonnie - MS3			
	Solovyev, Anatoly Y. - M19 CDR (Russia, up)			
	Budarin, Nikolai M. - M19 FE (Russia, up)			
	Dezhurov, Vladimir - M18 CDR (Russia, down)			
	Strekalov, Gennady - M18 FE (Russia, down)			
	Thagard, Norm - M18 (down)			
STS-70	Henricks, "Tom" - CDR	8/22/20	Jul-13-95	8:42 a.m. CDT
Discovery	Kregel, Kevin R. - PLT	142	Jul-22-95	7:02 a.m. CDT
	Thomas, Donald A. "Don" - MS1	3,700,000	KSC	
	Currie, Nancy J. - MS2			
	Weber, Mary Ellen - MS3			
STS-69	Walker, "Dave" - CDR	10/20/28	Sep-07-95	10:09 a.m. CDT
Endeavour	Cockrell, "Ken" - PLT	170	Sep-18-95	6:37 a.m. CDT
	Voss, James S. "Jim"- MS1/EV1			
	(PYLD CDR)	4,500,000	KSC	
	Newman, James H. "Jim" - MS2			
	Gernhardt, Michael L. "Mike" -			
	MS3/EV2			

STS-73 Columbia	Bowersox, Ken" - CDR	15/21/52	Oct-20-95	8:53 a.m. CDT
	Rominger, Kent V. - PLT	256	Nov-05-95	5:45 a.m. CST
	Coleman, "Cady" - MS1	6,600,000	KSC	
	Lopez-Alegria, Michael E. - MS2			
	Thornton, Kathryn C. "KT" - MS3			
	Leslie, Fred W. - PS1			
	Sacco Jr., Albert - PS2			
STS-74 Atlantis	Cameron, "Ken" - CDR	8/04/30	Nov-12-95	6:31 a.m. CST
	Halsell, Jr., "Jim" - PLT	129	Nov-20-95	11:01 a.m. CST
	Hadfield, Chris - MS1 (Canada)	3,400,000	KSC	
	Ross, Jerry L. - MS2			
	McArthur, William S. "Bill" - MS3			
STS-72 Endeavour	Duffy, Brian - CDR	8/22/00	Jan-11-96	3:41 a.m. CST
	Jett Jr., Brent W. - PLT	142	Jan-20-96	1:42 a.m. CST
	Chiao, Leroy - MS1	3,700,000	KSC	
	Scott, Winston E. - MS2			
	Wakata, Koichi - MS3			
	Barry, Daniel "Dan" - MS4			
STS-75 Columbia	Allen, Andrew M. "Andy" - CDR	15/17/40	Feb-22-96	2:18 p.m. CST
	Horowitz, Scott J. - PLT	252	Mar-09-96	7:58 a.m. CST
	Hoffman, Jeffrey A. - MS1	6,500,000	KSC	
	Cheli, Maurizio - MS2 (Italy)			
	Nicollier, Claude - MS3 (Switzerland)			
	Chang-Diaz, Franklin R. - MS4 (PYLD CDR)			
	Guidoni, Umberto - PS1 (Italy)			
STS-76 Atlantis	Chilton, Kevin P. - CDR	9/05/15	Mar-22-96	2:13 a.m. CST
	Searfoss, "Rick" - PLT	144	Mar-31-96	7:29 a.m. CST
	Sega, Ronald - MS1 (PYLD CDR)	3,800,000	EDW	
	Clifford, "Rich" - MS2			
	Godwin, Linda M. - MS3			
	Lucid, Shannon W. - MS4 (up)			
STS-77 Endeavour	Casper, John H. - CDR	10/00/39	May-19-96	5:30 a.m. CDT
	Brown, Curtis L. "Curt" - PLT	160	May-29-96	6:09 a.m. CDT
	Thomas, Andrew "Andy" - MS1	4,100,000	KSC	
	Bursch, Daniel W. "Dan" - MS2			
	Runco, Mario - MS3			
	Garneau, Marc - MS4 (Canada)			
STS-78 Columbia	Henricks, "Tom" - CDR	16/21/47	Jun-20-96	9:49 a.m. CDT
	Kregel, Kevin R. - PLT	271	Jul-07-96	7:37 a.m. CDT
	Linnehan, Rick - MS1	7,046,000	KSC	
	Helms, Susan J. - MS2 (PYLD CDR)			
	Brady, Charles "Chuck" - MS3			

	Favier, Jean-Jacques - PS1 (Canada)			
	Thirsk, Robert B. "Bob" - PS2 (Canada)			
STS-79	Readdy, William F. "Bill" - CDR	10/03/18	Sep-16-96	3:55 a.m. CDT
Atlantis	Wilcutt, "Terry" - PLT	159	Sep-26-96	7:13 a.m. CDT
	Apt, Jay - MS1	3,900,000	KSC	
	Akers, Thomas D. - MS2			
	Walz, Carl E. - MS3			
	Blaha, John E. - MS4 (up)			
	Lucid, Shannon - MS4 (down)			
STS-80	Cockrell, "Ken" - CDR	17/15/53	Nov-19-96	1:56 p.m. CST
Columbia	Rominger, Kent V. - PLT	278	Dec-07-96	5:49 a.m. CST
	Jernigan, "Tammy" - MS1	7,043,950	KSC	
	Jones, Thomas D. "Tom" - MS2			
	Musgrave, F. Story - MS3			
STS-81	Baker, Michael A. "Mike" - CDR	10/04/55	Jan-12-97	3:27 a.m. CST
Atlantis	Jett Jr., Brent W. - PLT	161	Jan-22-97	8:23 a.m. CST
	Wisoff, Peter J.K. "Jeff" - MS1	3,900,000	KSC	
	Grunsfeld, John M. - MS2			
	Ivins, Marsha S. - MS3			
	Linenger, Jerry M. - MS4 (up)			
	Blaha, John E. - MS4 (down)			
STS-82	Bowersox, "Ken" - CDR	9/23/37	Feb-11-97	2:55 a.m. CST
Discovery	Horowitz, Scott J. - PLT	149	Feb-21-97	2:32 a.m. CST
	Tanner, Joseph R. "Joe" - MS1	3,800,000	KSC	
	Hawley, Steve A. - MS2			
	Harbaugh, "Greg" - MS3			
	Lee, Mark C. - MS4			
	Smith, Steven L. - MS5			
STS-83	Halsell, James D. "Jim" - CDR	3/23/12	Apr-04-97	1:21 p.m. CST
Columbia	Still (Kilrain), Susan L. - PLT	63	Apr-08-97	1:33 p.m. CDT
	Voss, Janice E. - MS1 (PYLD CDR)	1,500,000	KSC	
	Gernhardt, "Mike" - MS2			
	Thomas, Donald A. "Don" - MS3			
	Crouch, Roger K. - PS1			
	Linteris, Gregory T. "Greg" - PS2			
STS-84	Precourt, Charles J. - CDR	9/05/19	May-15-97	3:08 a.m. CDT
Atlantis	Collins, Eileen M. - PLT	144	May-24-97	8:28 a.m. CDT
	Clervoy, Jean-Francois - MS1 (France)	3,600,000	KSC	
	Noriega, Carlos I. - MS2			
	Lu, Edward T. "Ed" - MS3			
	Kondakova, Elena V. - MS4 (Russia)			
	Foale, C. Michael "Mike" (up)			
	Linenger, Jerry M. (down)			

STS-94 Columbia	Halsell, James D. "Jim" - CDR	15/16/44	Jul-01-97	1:02 p.m. CDT
	Still (Kilrain), Susan L. - PLT	251	Jul-17-97	5:47 a.m. CDT
	Voss, Janice E. - MS1 (PYLD CDR)	6,200,000	KSC	
	Gernhardt, "Mike" - MS2			
	Thomas, Donald A. "Don" - MS3			
	Crouch, Roger K. - PS1			
	Linteris, Gregory T. "Greg" - PS2			
STS-85 Discovery	Brown, Curtis L. "Curt" - CDR	11/20/26	Aug-07-97	9:41 a.m. CDT
	Rominger, Kent V. - PLT	189	Aug-19-97	6:08 a.m. CDT
	Davis, N. Jan - MS1 (PYLD CDR)	4,725,000	KSC	
	Curbeam, Robert L. - MS2			
	Robinson, Steven K. - MS3			
	Tryggvason, Bjarni V. - PS1 (Canada)			
STS-86 Atlantis	Wetherbee, "Jim" - CDR	10/19/20	Sep-25-97	9:34 p.m. CDT
	Bloomfield, "Mike" - PLT	169	Oct-06-97	4:55 p.m. CDT
	Titov, Vladimir - MS1 (Russia)	4,225,000	KSC	
	Parazynski, Scott E. - MS2			
	Chretien, Jean-Loup - MS3 (France)			
	Lawrence, Wendy B. - MS4			
	Wolf, David A. - MS5 (up) Foale, C. Michael "Mike" - MS5 (down)			
STS-87 Columbia	Kregel, Keven R. - CDR	15/16/34	Nov-19-97	1:46 p.m. CST
	Lindsey, Steven W. - PLT	251	Dec-05-97	6:20 a.m. CST
	Chawla, Kalpana - MS1	6,544,000	KSC	
	Scott, Winston E. - MS2			
	Doi, Takao - MS3 (Japan)			
	Kadenyuk, Leonid K. - PS1 (Ukraine)			
STS-89 Endeavour	Wilcutt, "Terry" - CDR	8/19/46	Jan-22-98	8:48 p.m. CST
	Edwards Jr., Joe F. - PLT	138	Jan-31-98	4:35 p.m. CST
	Reilly II, James F. "Jim" - MS1	3,610,000	KSC	
	Anderson, "Mike" - MS2			
	Dunbar, Bonnie J. - MS3 (PYLD CDR)			
	Sharipov, Salizhan - MS4 (Russia)			
	Thomas, Andrew S.W. - MS5 (up) Wolf, David A. - MS5 (down)			
STS-90 Columbia	Searfoss, "Rick" - CDR	15/21/49	Apr-17-98	1:19 p.m. CDT
	Altman, Scott D. - PLT	255	May-03-98	11:09 a.m. CDT
	Linnehan, Richard M. "Rick" - MS1 (PYLD CDR)	6,375,000	KSC	
	Hire, Kathryn P. "Kay" - MS2			

	Williams, "Dave" -MS3 (Canada) Buckey Jr., Jay Clark - PS1 Pawelczyk, "Jim" - PS2			
STS-91 Discovery	Precourt, Charles J. - CDR Gorie, "Dom" - PLT Chang-Diaz, Franklin R. - MS1 (PYLD CDR) Lawrence, Wendy B. - MS2 Kavandi, Janet L. - MS3 Ryumin, Valery - MS4 (Russia) Thomas, Andrew S.W. - MS5 (down)	9/19/53 154 3,800,000	Jun-02-98 Jun-12-98 KSC	5:06 p.m. CDT 1 p.m. CDT
STS-95 Discovery	Brown, Curtis L. "Curt" - CDR Lindsey, Steven W. - PLT Robinson, Steven K. - MS1 Parazynski, Scott E. - MS2 Duque, Pedro - MS3 Naito-Mukai, Chiaki - PS1 Glenn Jr., John Herschel - PS2	8/21/43 134 3,644,459	Oct-29-98 Nov-07-98 KSC	1:20 p.m. CST 11:04 a.m. CST
STS-88 Endeavour	Cabana, Robert D. "Bob" - CDR Sturckow, "Rick" - PLT Ross, Jerry L. - MS1 Currie, Nancy J. - MS2 Newman, James H. "Jim" - MS3 Krikalev, Sergei - MS4 (Russia)	11/19/17 185 4,650,000	Dec-04-98 Dec-15-98 KSC	2:36 a.m. CST 9:54 p.m. CST
STS-96 Discovery	Rominger, Kent V. - CDR Husband, Rick D. - PLT Jernigan, "Tammy" - MS1 Ochoa, Ellen - MS2 Barry, Daniel T. "Dan" - MS3 Payette, Julie - MS4 (Canada) Tokarev, Valery - MS5 (Russia)	9/19/13 153 4,051,000	May-27-99 Jun-06-99 KSC	5:50 a.m. CDT 1:03 a.m. CDT
STS-93 Columbia	Collins, Eileen M. - CDR Ashby, Jeffrey S. "Jeff" - PLT Coleman, "Cady" - MS1 Hawley, Steven A. - MS2 Tognini, Michel - MS3 (France)	4/22/49 79 1,796,000	Jul-22-99 Jul-27-99 KSC	11:31p.m. CDT 10:21p.m. CDT
STS-103 Discovery	Brown, Curtis L. "Curt" - CDR Kelly, Scott - PLT Smith, Steven L. - MS1 Clervoy, Jean-Francois - MS2 (France) Grunsfeld, John M. - MS3 Foale, C. Michael "Mike" - MS4 Nicollier, Claude - MS5 (Switzerland)	7/23/11 120 3,267,360	Dec-19-99 Dec-27-99 KSC	6:50 p.m. CST 6:01 p.m. CST

STS-99	Kregel, Kevin R. - CDR	11/05/38	Feb-11-00	11:44 a.m. CST
Endeavour	Gorie, "Dom" - PLT	181	Feb-22-00	5:22 p.m. CST
	Thiele, Gerhard- MS1 (Germany)	4,708,821	KSC	
	Kavandi, Janet L. - MS2			
	Voss, Janice E. - MS3			
	Mohri, Mamoru - MS4 (Japan)			
STS-101	Halsell, James D. "Jim" - CDR	9/20/09	May-19-00	5:11 a.m. CDT
Atlantis	Horowitz, Scott J. - PLT	155	May-29-00	1:20 a.m. CDT
	Weber, Mary Ellen - MS1	5,076,281	KSC	
	Williams, Jeff N. - MS2			
	Voss, James S. "Jim" - MS3			
	Helms, Susan J. - MS4			
	Usachev, Yury - MS5 (Russia)			
STS-106	Wilcutt, "Terry" - CDR	11/19/12	Sep-08-00	7:46 a.m. CDT
Atlantis	Altman, Scott D. - PLT	203	Sep-20-00	2:56 a.m. CDT
	Lu, Edward T. "Ed" - MS1	4,919,243	KSC	
	Mastracchio, "Rick" - MS2			
	Burbank, Daniel C. "Dan" - MS3			
	Malenchenko, Yuri - MS4 (Russia)			
	Morukov, Boris - MS5 (Russia)			
STS-92	Duffy, Brian - CDR	12/21/40	Oct-11-00	6:17 pm CDT
Discovery	Melroy, Pamela A. "Pam" - PLT	202	Oct-24-00	4:00 p.m. CDT
	Chiao, Leroy - MS1	5,331,301	EDW	
	McArthur, William S. "Bill" - MS2			
	Wisoff, Peter J.K. "Jeff" - MS3			
	Lopez-Alegria, Michael E. "Mike" - MS4			
	Wakata, Koichi - MS5 (Japan)			
STS-97	Jett Jr., Brent W. - CDR	10/19/58	Nov-30-00	9:06 p.m. CST
Endeavour	Bloomfield, "Mike" - PLT	170	Dec-11-00	5:04 p.m. CST
	Tanner, Joseph R. "Joe" - MS1	4,476,164	KSC	
	Noriega, Carlos I. - MS3			
	Garneau, Marc - MS2 (Canada)			
STS-98	Cockrell, "Ken" - CDR	12/21/20	Feb-7-01	5:13 p.m. CST
Atlantis	Polansky, Mark L. - PLT	203	Feb-20-01	2:33 p.m. CST
	Curbeam, Robert L. - MS1	5,369,576	EDW	
	Ivins, Marsha S. - MS2			
	Jones, Thomas D. "Tom" - MS3			
STS-102	Wetherbee, "Jim" - CDR	12/19:49	Mar-8-01	5:42 a.m. CST
Discovery	Kelly, James M. "Jim" - PLT	201	Mar-21-01	1:31 a.m. CST
	Thomas, Andrew S.W. - MS1	5,357,432	KSC	
	Richards, Paul W. - MS2			
	Voss, "Jim" - MS3 (Exp 2 up)			
	Helms, Susan - MS4 (Exp 2 up)			

Usachev, Yury - MS5 (Exp 2 Russia up)
 Shepherd, William M. "Bill" - (Exp 1 down)
 Gidzenko, Yuri - (Exp 1 Russia down)
 Krikalev, Sergei - (Exp 1 Russia down)

STS-100	Rominger, Kent V. - CDR	11/21/30	Apr-19-01	1:41 p.m. CDT
Endeavour	Ashby, Jeffrey S. "Jeff" - PLT	186	May-1-01	11:11 a.m. CDT
	Hadfield, Chris - MS1 (Canada)	4,910,188	EDW	
	Phillips, John L. - MS2			
	Parazynski, Scott E. - MS3			
	Guidoni, Umberto - MS4 (Italy)			
	Lonchakov, Yuri - MS5 (Russia)			
STS-104	Lindsey, Steven W. - CDR	12/18/35	Jul-12-01	4:04 a.m. CDT
Atlantis	Hobaugh, Charles O. - PLT	200	Jul-24-01	10:39 p.m. CDT
	Gernhardt, "Mike" - MS1	5,309,429	KSC	
	Kavandi, Janet L. - MS2			
	Reilly II, James F. "Jim" - MS3			
STS-105	Horowitz, Scott J. - CDR	11/21/13	Aug-10-01	4:10 pm CDT
Discovery	Sturckow, "Rick" PLT	186	Aug-22-01	1:23 pm CDT
	Forrester, Patrick G. "Pat" - MS1	4,912,389	KSC	
	Barry, Daniel T. "Dan" - MS2			
	Culbertson Jr., Frank L. - MS3 (Exp 3 up)			
	Dezhurov, Vladimir - MS4 (Exp 3 Russia up)			
	Tyurin, Mikhail - MS5 (Exp 3 Russia up)			
	Voss, James S. "Jim" - MS3 (Exp 2 down)			
	Helms, Susan J. - MS4 (Exp 2 down)			
	Usachev, Yury - MS5 (Exp 2 Russia down)			
STS-108	Gorie, "Dom" - CDR	11/19/36	Dec-5-01	4:19 pm CST
Endeavour	Kelly, Mark E. - PLT	185	Dec-17-01	11:55 am CST
	Godwin, Linda W. - MS1	4,817,649	KSC	
	Tani, Daniel M. "Dan" - MS2			
	Walz, Carl E. - MS3, (Exp 4 up)			
	Bursch, Daniel W. "Dan" - MS4 (Exp 4 up)			
	Onufrienko, Yury - MS5 (Exp 4 Russia up)			
	Culbertson Jr., Frank L. - MS3 (Exp 3 down)			
	Dezhurov, Vladimir - MS4 (Exp 3 Russia down)			
	Tyurin, Mikhail - MS5 (Exp 3 Russia down)			
STS-109	Altman, Scott D. - CDR	10/22/10	Mar-1-02	5:22 am CST
Columbia	Carey, Duane G. - PLT	165	Mar-12-02	3:32 am CST
	Grunsfeld, John M. - MS1 (PYLD CDR)	3,941,705	KSC	
	Currie, Nancy J. - MS2			
	Linnehan, "Rick" - MS3			
	Newman, James H. "Jim" - MS4			
	Massimino, "Mike" - MS5			

STS-110	Bloomfield, "Mike" - CDR	10/19/43	Apr-08-02	3:44 pm CDT
Atlantis	Frick, Steven N. - PLT	170	Apr-19-02	11:27 am CDT
	Walheim, Rex J. - MS1	4,525,299	KSC	
	Ochoa, Ellen - MS2			
	Morin, Lee M. - MS3			
	Ross, Jerry L. - MS4			
	Smith, Steven L. - MS5			
STS-111	Cockrell, "Ken" - CDR	13/20/35	Jun-05-02	4:23 pm CDT
Endeavour	Lockhart, Paul S. - PLT	217	Jun-19-02	12:58 pm CDT
	Chang-Diaz, Franklin R. - MS1	5,781,115	EDW	
	Perrin, Philippe - MS2 (France)			
	Korzun, Valery – MS3 (Exp 5 Russia up)			
	Whitson, Peggy A. – MS5 (Exp 5 up)			
	Onufrienko, Yury - MS3 (Exp 4 Russia down)			
	Walz, Carl E.. – MS4 (Exp 4 down)			
	Bursch, Daniel W. "Dan" - MS5 (Exp 4 down)			
STS-112	Ashby, Jeffrey S. "Jeff" - CDR	10/19/58	Oct-07-02	2:46 pm CDT
Atlantis	Melroy, Pamela A. "Pam" - PLT	170	Oct-18-02	10:44 am CDT
	Wolf, David A. - MS1	4,513,015	KSC	
	Magnus, "Sandy" - MS2			
	Sellers, Piers J. - MS3			
	Yurchikhin, Fyodor - MS4 (Russia)			
STS-113	Wetherbee, "Jim" - CDR	13/18/47	Nov-23-02	6:50 pm CST
Endeavour	Lockhart, Paul S. - PLT	215	Dec-07-02	1:37 pm CST
	Lopez-Alegria, "Mike" - MS1	5,735,600	KSC	
	Herrington, John B. - MS2			
	Bowersox, Kenneth D. "Ken" – MS3 (Exp 6 up)			
	Budarin, Nikolai - MS4 (Exp 6 Russia up)			
	Pettit, Donald R. "Don" - MS5 (Exp 6 up)			
	Korzun, Valery - MS3 (Exp 5 Russia down)			
	Whitson, Peggy A. - MS4 (Exp 5 down)			
	Treschev, Sergei - MS5 (Exp 5 Russia down)			
STS-107	Husband, Rick D. - CDR	15/22/20	Jan-16-03	9:39 am CST
Columbia	McCool, William C. "Willie" - PLT	255	Feb-01-03	7:59 am CST
	Brown, David M. "Dave" - MS1	6,649,757		
	Chawla, Kalpana "KC" - MS2			
	Anderson, "Mike" - MS3			
	Clark, Laurel B. - MS4			
	Ramon, Ilan - PS1 (Israel)			
STS-114	Collins, Eileen M. - CDR	13/21/32	Jul-26-05	9:39 am CDT
Discovery	Kelly, James M. "Jim" - PLT	220	Aug-09-05	7:11am CDT
	Noguchi, Soichi - MS1 (Japan)	5,796,419	EDW	
	Robinson, Steven K. - MS2			
	Thomas, Andrew S.W. - MS3			

	Lawrence, Wendy B. - MS4			
	Camarda, Charles J. - MS5			
STS-121	Lindsey, Steven W. - CDR	12/18/37	Jul-4-06	1:38 pm CDT
Discovery	Kelly, Mark E. - PLT	202	Jul-17-06	8:15am CDT
	Fossum, Michael E. - MS 1	5,293,923	KSC	
	Nowak, Lisa M. - MS 2			
	Wilson, Stephanie D. - MS 3			
	Sellers, Piers J. - MS 4			
	Reiter, Thomas - MS 5 (up - Exp 13/14) (Germany)			
STS-115	Jett Jr., Brent W. - CDR	11/19/06	Sep-09-06	10:15 am CT
Atlantis	Ferguson, "Chris" - PLT	186	Sep-21-06	5:21 am CT
	Tanner, Joseph R. "Joe" - MS 1	4,910,268	KSC	
	Burbank, Daniel C. "Dan" - MS 2			
	Stefanyshyn-Piper, Heidemarie M. - MS3			
	MacLean, Steve- MS4 (Canada)			
STS-116	Polansky, Mark L. - CDR	12/20/45	Dec-09-06	7:47 pm CT
Discovery	Oefelein, William A. "Bill" - PLT	203	Dec-22-06	4:32 pm CT
	Patrick, "Nick" - MS 1	5,330,398	KSC	
	Curbeam, Robert L. - MS 2			
	Fuglesang, Christer - MS3 (Sweden)			
	Higginbotham, Joan E. - MS 4			
	Williams, Sunita L. "Suni" - MS 5 (up - Exp 14/15)			
	Reiter, Thomas - MS5(down -Exp 13/14) (Germany)			
STS-117	Sturckow, "Rick" - CDR	13/20/11	Jun-08-07	6:38 pm CT
Atlantis	Archambault, "Lee" - PLT	220	Jun-22-07	2:49 pm CT
	Forrester, Patrick G. "Pat" - MS1	5,809,363	EDW	
	Swanson, Steven R. - MS2			
	Olivas, John D. "Danny" - MS3			
	Reilly II, James F. "Jim" - MS4			
	Anderson, Clayton C. - MS5 (up)			
	Williams, Sunita L. "Suni" - MS5 (down)			
STS-118	Kelly, Scott J. - CDR	12/17/56	Aug-08-07	5:36 pm CT
Endeavour	Hobaugh, Charles O. - PLT	201	Aug-21-07	11:32 am CT
	Caldwell Dyson, Tracy E. - MS 1	5,274,977	KSC	
	Mastracchio, "Rick" - MS 2			
	Williams, "Dave" - MS3 (Canada)			
	Morgan, Barbara R. - MS 4			
	Drew Jr., "Al" - MS 5			
STS-120	Melroy, Pamela A. "Pam" - CDR	15/02/23	Oct-23-07	10:38 am CDT
Discovery	Zamka, George D. - PLT	238	Nov-07-07	12:01 pm CST
	Parazynski, Scott E. - MS 1	6,249,432	KSC	
	Wilson, Stephanie D. - MS 2			
	Wheelock, "Doug" - MS 3			
	Nespoli, Paolo - MS 4 (Italy)			
	Tani, Daniel "Dan" - MS 5 (up)			
	Anderson, "Clay" - MS 5 (down)			

STS-122	Frick, Steven N. - CDR	12/18/22	Feb-07-08	1:45pm CST
Atlantis	Poindexter, Alan G. - PLT	202	Feb-20-08	8:07am CST
	Melvin, Leland D. - MS 1	5,296,842	KSC	
	Walheim, Rex J. - MS 2			
	Schlegel, Hans – MS 3 (Germany)			
	Love, Stanley G. "Stan" - MS 4			
	Eyharts, Leopold - MS 5 (up) (France)			
	Tani, "Dan" - MS 5 (down)			
STS-123	Gorie, "Dom" - CDR	15/18/11	Mar-11-08	1:28am CDT
Endeavour	Johnson, Greg H. "Box" - PLT		Mar-26-08	7:39pm CDT
	Behnken, Robert L. "Bob" - MS 1	6,577,857	KSC	
	Foreman, "Mike" - MS 2			
	Doi, Takao - MS 3 (Japan)			
	Linnehan, "Rick" - MS 4			
	Reisman, Garrett E. - MS 5 (up)			
	Eyharts, Leopold - MS 5 (down) (France)			
STS-124	Kelly, Mark E. - CDR	13/18/13	May-31-08	4:02 pm CDT
Discovery	Ham, Kenneth T. "Ken" - PLT	217	Jun-14-08	10:15 am CDT
	Nyberg, Karen L. - MS 1	5,735,643	KSC	
	Garan Jr., "Ron" - MS 2			
	Fossum, Michael E. - MS 3			
	Hoshide, Akihiko "Aki" - MS 4 (Japan)			
	Chamitoff, Gregory E. "Greg" - MS 5 (up)			
	Reisman, Garrett E. - MS 5 (down)			
STS-126	Ferguson, "Chris" - CDR	15/20/30	Nov-14-08	6:55pm CST
Endeavour	Boe, Eric A. - PLT	251	Nov-30-08	3:25 pm CST
	Pettit, Donald R. "Don" - MS 1	6,615,109	EDW	
	Bowen, Stephen G. - MS 2			
	Stefanyshyn-Piper, Heidemarie M. – MS3			
	Kimbrough, "Shane" - MS 4			
	Magnus, Sandra H. "Sandy" - MS 5 (up)			
	Chamitoff, Gregory E. "Greg" - MS 5 (down)			
STS-126	Archambault, Lee - CDR	12/19/29	Mar-15-09	6:43pm CDT
Discovery	Antonelli, "Tony" - PLT	202	Mar-28-09	2:15 PM CDT
	Acaba, Joseph M. "Joe" - MS 1	5,304,106	KSC	
	Swanson, Steven R. - MS 2			
	Arnold, "Ricky" - MS 3			
	Phillips, John L. - MS 4			
	Wakata, Koichi-MS5 (down) (Japan)			
	Magnus, Sandra H. "Sandy" - MS 5 (down)			
STS-125	Altman, Scott D. - CDR	12/21/37	May-11-09	1:01 pm CDT
Atlantis	Johnson, "Ray J" - PLT	197	May-24-09	10:39 am CDT
	Good, Michael T. "Mike" - MS 1	5,276,000	EDW	
	McArthur, Megan - MS 2			

	Grunsfeld, John M. - MS 3			
	Massimino, "Mike" - MS 4			
	Feustel, "Drew" - MS 5			
STS-127	Polansky, Mark L. - CDR	15/16/45	July-15-09	5:03 pm CDT
Endeavour	Hurley, Douglas G. "Doug" - PLT	248	July-31-09	9:48 am CDT
	Cassidy, "Chris" - MS 1	6,547,853	KSC	
	Payette, Julie - MS 2 (Canada)			
	Marshburn, "Tom" - MS 3			
	Wolf, David A. "Dave" - MS 4			
	Kopra, "Tim" - MS 5 (up)			
	Wakata, Koichi - MS 5 (Japan down)			
STS-128	Sturckow, "Rick" - CDR	13/20/54	Aug-28-09	10:59 CDT
Discovery	Ford, Kevin A. - PLT	219	Sep-11-09	7:53 CDT
	Forrester, "Pat" - MS 1	5,755,275	EDW	
	Hernandez, Jose' M. - MS 2			
	Olivas, John D. "Danny" - MS 3			
	Fuglesang, Christer - MS 4 (Sweden)			
	Stott, Nicole P. - MS 5 (up)			
	Kopra, Timothy L. "Tim" - MS 5 (down)			
STS-129	Hobaugh, "Charlie" - CDR	10/19/16	Nov-16-09	1:28pm CST
Atlantis	Wilmore, Barry E. "Butch" - PLT	171	Nov-27-09	8:44 am CST
	Melvin, Leland D. - MS 1	4,490,138	KSC	
	Bresnik, "Randy" - MS 2			
	Foreman, "Mike" - MS 3			
	Satcher Jr., "Bobby" - MS 4			
	Stott, Nicole P. - MS 5 (down)			
STS-130	Zamka, George D. - CDR	13/18/06	Feb-08-10	3:14am CST
Endeavour	Virts Jr., Terry W. - PLT	217	Feb-21-10	9:20pm CST
	Hire, Kathryn P. "Kay" - MS1	5,738,991	KSC	
	Robinson, Stephen K. - MS2			
	Patrick, "Nick" - MS 3			
	Behnken, Robert L. "Bob" - MS 4			
STS-131	Poindexter, Alan G. - CDR	15/02/47	Apr-05-10	5:21am CDT
Discovery	Dutton Jr., James P. "Jim" - PLT	238	Apr-20-10	8:08am CDT
	Mastracchio, "Rick" - MS1	6,232,235	KSC	
	Metcalf-Lindenberger, "Dottie" - MS2			
	Wilson, Stephanie D. - MS 3			
	Yamazaki, Naoko- MS 4 (Japan)			
	Anderson, "Clay" - MS 5			
STS-132	Ham, Kenneth T. "Ken" - CDR	11/18/28	May-14-10	1:20pm CDT
Atlantis	Antonelli, "Tony" - PLT	186	May-26-10	7:48am CDT
	Reisman, Garrett E. - MS1	4,879,978	KSC	
	Good, Michael T. "Mike" - MS 2			

Bowen, Stephen G. - MS 3
Sellers, Piers J. - MS 4

STS-133	Lindsey, Steve L. - CDR	12/19/00	Feb-24-11	3:53pm CST
Discovery	Boe, Eric A. - PLT	202	Mar-09-11	10:57am CST
39th	Drew Jr., "Al" - MS 1	5,304,140		
flight	Bowen, Stephen G. - MS 2			
	Barratt, Michael R. "Mike" - MS 3			
	Stott, Nicole P. - MS 4			
		148,221,675		
		for 39 flights		

STS-134	Kelly, Mark E. - CDR	15/17/39	May-16-11	7:56am CST
Endeavour	Johnson, Greg H. "Box" - PLT	248	Jun-01-11	1:35am CST
25th	Fincke, Michael E. "Mike" - MS 1	6,510,221		
flight	Vittori, Roberto - MS 2 (Italy)			
	Feustel, "Drew" - MS 3			
	Chamitoff, "Greg" - MS 4			
		122,883,151		
		for 25 flights		

STS-135	Ferguson, "Chris" - CDR	12/18/27	Jul-08-01	10:29am CDT
Atlantis	Hurley, "Doug" - PLT	200	Jul-21-11	4:57am CDT
33rd	Magnus, "Sandy" - MS 1	5,284,862		
flight	Walheim, Rex J. - MS 2			
		125,935,769		
		for 33 flights		

Total
Time:

37164:31:05

Miles

542,398,878 (135 flights)

11.3 INTERNATIONAL SPACE STATION EXPEDITIONS

Expedition 1

William Shepherd - Yury Gidzenko - Sergei Krikalev

Launch: October 2000

Land: March 2001

141 days

Expedition 2

Yuri Usachev - Jim Voss - Susan Helms

Launch: March 2001

Land: August 2001

167 days

Expedition 3

Frank Culbertson - Vladimir Dezhurov - Mikhail Tyurin

Launch: August 2001

Land: December 2001

129 days

Expedition 4

Yury Onufrienko - Carl Walz - Daniel Bursch

Launch: December 2001

Land: June 2002

196 days

Expedition 5

Valery Korzum - Sergei Treschev - Peggy Whitson

Launch: June 2002

Land: December 2002

185 days

Expedition 6

Ken Bowersox - Nikolai Budarin - Donald Pettit

Launch: November 2002

Land: May 2003

161 days

Expedition 7

Yuri Malenchenko - Ed Lu

Launch: April 2003

Land: October 2003

185 days

Up with Ex 8 / Down with Ex 7

Pedro Duque

Launch & Land: October 2003

10 days

Expedition 8

Mike Foale - Alexander Kaleri

Launch: October 2003

Land: April 2004

195 days

Up with Ex 9 / Down with Ex 8

Andre Kuipers

Launch & Land: April 2004

11 days

Expedition 9

Gennady Padalka - Michael Fincke
 Launch: April 2004
 Land: October 2004
 188 days

Expedition 10

Leroy Chiao - Salizhan Sharipov
 Launch: October 2004
 Land: April 2005
 193 days

Expedition 11

Sergei Krikalev - John Phillips
 Launch: April 2005
 Land: October 2005
 179 days

Expedition 12

William McArthur - Valery Tokarev
 Launch: October 2005
 Land: April 2006
 190 days

Expedition 13

Pavel Vinogradov - Jeffrey Williams
 Launch: March 2006
 Land: September 2006
 183 days

Expedition 14

Mike Lopez-Alegria - Mikhail Tyurin
 Launch: September 2006
 Land: April 2007
 215 days

Expedition 15

Fyodor Yurchikhin - Oleg Kotov
 Launch: April 2007
 Land: October 2007
 196 days

Expedition 16

Peggy Whitson - Yuri Malenchenko
 Launch: October 2007
 Land: April 2008
 192 days

Expedition 16

Leopold Eyharts

Up with Ex 10 / Down with Ex 9

Yuri Shargin
 Launch & Land: October 2004
 10 days

Up with Ex 11 / Down with Ex 10

Roberto Vittori
 Launch & Land: April 2005
 10 days

Up with Ex 12 / Down with Ex 11

Greg Olson
 Launch & Land: October 2005
 10 days

Expedition 13 & 14

Thomas Reiter
 Launch: July 2006
 Land: December 2006
 171 days

Expedition 14 & 15

Suni Williams
 Launch: December 2006
 Land: June 2007
 194 days

Expedition 15 & 16

Clay Anderson
 Launch: June 2007
 Land: November 2007
 152 days

Expedition 16

Dan Tani
 Launch: October 2007
 Land: February 2008
 120 days

Expedition 16 & 17

Garrett Reisman

Launch: February 2008
Land: March 2008
48 days

Launch: March 2008
Land: June 2008
95 days

Expedition 17

Serget Volkov - Oleg Kononenko
Launch: April 2008
Land: October 2008
199 days

Expedition 17 & 18

Gregory Chamitoff
Launch: May 2008
Land: November 2008
183 days

Expedition 18

Michael Fincke - Yuri Lonchakov
Launch: October 2008
Land: April 2009
178 days

Expedition 18 & 19

Koichi Wakata
Launch: March 2009
Land: July 2009
137 days

Expedition 18

Sandy Magnus
Launch: November 2008
Land: March 2009
134 days

Expedition 19 & 20

Grennadi Padalka - Michael Barratt
Launch: March 2009
Land: October 2009
199 days

Expedition 20 & 21

Roman Romanenko – Frank DeWinne- Robert Thirsk
Launch: May 2009
Land: December 2009
187 days

Expedition 20

Tim Kopra
Launch: July 2009
Land: September 2009
58 days

Expedition 21 & 22

Jeffrey Williams – Maxim Suraev
Launch: September 2009
Land: March 2010
169 days

Expedition 21

Nicole Stott
Launch: August 2009
Land: November 2009
91 Days

Expedition 22 & 23

Oleg Kotov - Soichi Noguchi - Timothy Creamer
Launch: December 2009
Land: June 2010
163 days

Expedition 23 & 24

Aleksandr Skvortsov - Mikhail Kornienko - Tracy Caldwell-Dyson
Launch: April 2010
Land: September 2010
176 days

Expedition 24 & 25

Douglas Wheelock - Fyodor Yurchikhin - Shannon Walker
Launch: June 2010
Land: November 2010
163 days

Expedition 25 & 26

Scott Kelly - Aleksandr Kaleri - Oleg Skripochka
Launch: October 2010
Land: March 2011
159 days

Expedition 26 & 27

Dmitri Kondratyev - Catherine Coleman - Paolo Nespoli
Launch: December 2010
Land: May 2011
159 days

Expedition 27 & 28

Andrei Borisenko - Aleksandr Samokutyaev - Ronald Garan
Launch: April 2011
Land: September 2011
164 days

Expedition 28 & 29

Michael Fossum - Sergei Volkov - Satoshi Furukawa
Launch: June 2011
Land: November 2011
167 days

Expedition 29 & 30

Daniel Burbank - Anton Shkaplerov - Anatoly Ivanishin
Launch: November 2011
Land: April 2012
165 days

Expedition 30 & 31

Oleg Kononenko - Donald Pettit - Andre Kuipers

Launch: December 2011
Land: July 2012
192 days

Expedition 31 & 32

Gennadi Padalka – Sergei Revin – Joseph Acaba
Launch: May 2012
Land: September 2012
123 Days

Expedition 32 & 33

Sunita Williams - Yuri Malenchenko - Aki Hoshide
Launch: July 2012
Land: November 2012
127 Days

Expedition 33 & 34

Kevin Ford - Oleg Novitsky - Yevgeni Tarelkin
Launch: October 2012
Land: March 2013

Expedition 34 & 35

Chris Hadfield - Roman Romanenko - Tom Marshburn
Launch: December 2012
Land: May 2013

Expedition 35 & 36

Pavel Vinogradov - Aleksander Misurkin - Chris Cassidy
Launch: March 2013
Land: September 2013

Expedition 36 & 37

Fyodor Yurchikhin - Luca Parmitano - Karen Nyberg
Launch: May 2013
Land: November 2013

Expedition 37 & 38

Oleg Kotov - Sergey Ryzansky - Mike Hopkins
Launch: September 2013
Land: March 2014

Expedition 38 & 39

Koichi Wakata - Mikhail Tyurin - Rick Mastracchio
Launch: November 2013
Land: TBD

Expedition 39 & 40

Steve Swanson - Aleksandr Skvortsov - Oleg Artemiev
Launch: March 2014
Land: September 2014

Expedition 40 & 41

Makin Suraev - Reid Wiseman - Alexander Gerst

Launch: June 2014

Land: November 2014

Expedition 41 & 42

Barry Wilmore - Alexander Samoukutyayev - Yelena Serova

Launch: October 2014

Land:

Expedition 42 & 43

Sergie Zalyotin - Samantha Cristoforetti - Terry Virts

Launch: December 2014

Land: May 2015

Expedition 43 & 44

Yuri Lonchakov - Aleksei Ovchinin - Kjell Lindgren

Launch:

Land:

11.4 EVA STATISTICS FOR US ASTRONAUTS

ASTRONAUT	# of EVAs	Total Time
Michael (L.A.) Lopez-Algeria (F)	10	67 hours – 40 minutes
Jerry Ross (F)	9	58 hours – 18 minutes
John Grunsfeld (M)	8	58 hours – 30 minutes
Sunita “Suni” Williams (A)	7	50 hours – 40 minutes
Steve Smith (M)	7	49 hours – 25 minutes
Michael “Mike” Fincke (A)	9	48 hours 37 minutes
Michael “Mike” Fossum (A)	7	48 hours – 32 minutes
Steve Bowen (A)	7	47 hours – 18 minutes
Scott Parazynski (F)	7	47 hours – 5 minutes
Joe Tanner (F)	7	46 hours – 29 minutes
Robert “Beamer” Curbeam (F)	7	45 hours – 34 minutes
Doug “Wheels” Wheelock (A)	6	43 hours – 30 minutes
James “Jim” Newman (F)	6	43 hours – 13 minute
Andrew “Drew” Feustel (A)	6	42 hours – 18 minutes
Rick Linnehan (M)	6	42 hours – 11 minutes
David “Dave” Wolf (F)	7	47 hours – 05 minutes
Piers Sellers (M)	6	41 hours – 10 minutes
Peggy Whitson (A)	6	39 hours – 46 minutes
Dan Tani (F)	6	39 hours – 11 minutes
Rick Mastracchio (A)	6	38 hours – 30 minutes
Clay Anderson (F)	6	38 hours – 28 minutes
Robert “Bob” Behnken (A)	6	37 hours – 33 minutes
Rex Walheim (A)	5	35 hours – 03 minutes
Leroy Chiao (F)	6	36 hours – 7 minutes
John “Danny” Olivas (F)	5	34 hours – 28 minutes
Heide Stefanyshyn-Piper (F)	5	33 hours – 42 minutes
Michael Foreman (M)	5	32 hours – 19 minutes
James “Jim” Reilly (F)	5	30 hours – 10 minutes
Michael “Mike” Massimino (M)	4	30 hours – 04 minutes
Michael “Bueno” Good (M)	4	29 hours – 53 minutes
Thomas “Tom” Akers (F)	4	29 hours – 40 minutes
Ronald “Ron” Garan (M)	4	27 hours – 3 minutes
Steven “Swanny” Swanson (A)	4	26 hours – 22 minutes
Story Musgrave (F)	4	26 hours – 19 minutes
Mark Lee (F)	4	26 hours – 1 minute
Daniel “Dan” Barry (F)	4	25 hours – 53 minutes
Partick “Pat” Forrester (M)	4	25 hours – 22 minutes
Jeffrey “Jeff” Hoffman (F)	4	25 hours – 8 minutes
William “Bill” McArthur (M)	4	24 hours – 21 minutes
Eugene “Gene” Cernan (F)	4	24 hours – 16 minutes
Michael Gernhardt (M)	4	23 hours – 16 minutes
Tracy Caldwell Dyson (A)	3	22 hours – 49 minutes
Michael “Mike” Foale (A)	4	22 hours – 44 minutes
James “Jim” Voss (F)	4	22 hours – 35 minutes

ASTRONAUT	# of EVAs	Total Time
Harrison "Jack" Schmitt (F)	3	22 hours – 4 minutes
James "Ox" van Hoften (F)	4	21 hours – 51 minutes
Garrett Reisman (F)	3	21 hours – 12 minutes
Kathryn Thornton (F)	3	21 hours – 11 minutes
Charlie Duke (F)	3	20 hours 15 minutes
John Young (F)	3	20 hours – 15 minutes
Steven "Steve" Robinson (F)	3	20 hours – 5 minutes
John Herrington (F)	3	19 hours – 55 minutes
Peter "Jeff" Wisoff (F)	3	19 hours – 53 minutes
Thomas "Tom" Jones (F)	3	19 hours – 49 minutes
Franklin Chang-Diaz (F)	3	19 hours – 31 minutes
Winston Scott (F)	3	19 hours – 26 minutes
Carlos Noriega (F)	3	19 hours – 20 minutes
Jeffrey "Jeff" Williams (A)	3	19 hours – 9 minutes
Thomas "Tom" Marshburn (A)	3	18 hours – 59 minutes
Carl Walz (F)	3	18 hours – 55 minutes
James Irwin (D)	3	18 hours – 35 minutes
David Scott (F)	3	19 hours – 35 minutes
Gregory "Greg" Harbaugh (F)	3	18 hours – 29 minutes
Nicholas "Nick" Patrick (F)	3	18 hours – 14 minutes
Christopher "Chris" Cassidy (A)	3	18 hours – 5 minutes
Pierre Thuot (F)	3	17 hours – 38 minutes
Richard "Rick" Hieb (F)	3	17 hours – 38 minutes
Gerald "Gerry" Carr (F)	3	15 hours – 48 minutes
Stanley "Stan" Love (M)	2	15 hours – 23 minutes
Edward "Ed" Gibson (F)	3	15 hours – 17 minutes
Lee Morin (M)	2	14 hours – 9 minutes
Gregory "Greg" Chamitoff (A)	2	13 hours – 42 minutes
Owen Garriott (F)	3	13 hours – 42 minutes
William "Bill" Pogue (F)	2	13 hours – 31 minutes
Kenneth "Sox" Bowersox (F)	2	13 hours – 17 minutes
Donald "Don" Pettit (A)	2	13 hours – 17 minutes
Joseph "Joe" Acaba (A)	2	12 hours – 57 minutes
Robert "Shane" Kimbrough (A)	2	12 hours – 52 minutes
B. Alvin "Al" Drew (A)	2	12 hours – 48 minutes
Charles "Pete" Conrad (D)	4	12 hours – 44 minutes
Richard "Ricky" Arnold (A)	2	12 hours – 34 minutes
Robert "Bobby" Satcher (F)	2	12 hours – 19 minutes
Sherwood "Woody" Spring (F)	2	12 hours – 14 minutes
Dale Gardner (F)	2	12 hours – 14 minutes
Joseph "Joe" Allen (F)	2	12 hours – 14 minutes
Bruce McCandless (F)	2	12 hours – 12 minutes
Robert Stewart (F)	2	12 hours – 12 minutes
William "Bill" Fisher (F)	2	11 hours – 52 minutes
Randolph "Randy" Bresnik (A)	2	11 hours – 50 minutes

ASTRONAUT	# of EVAs	Total Time
Daniel "Dan" Bursch (F)	2	11 hours – 48 minutes
Jack Lousma (F)	2	11 hours – 1 minute
Jerome "Jay" Apt (F)	2	10 hours – 49 minutes
Alan Bean (F)	3	10 hours – 26 minutes
Linda Godwin (F)	2	10 hours – 14 minutes
George "Pinky" Nelson (F)	2	10 hours – 6 minutes
Alan Shepard (D)	2	9 hours – 17 minutes
Edgar Mitchell (F)	2	9 hours – 17 minutes
Susan Helms (F)	1	8 hours – 56 minutes
Tammy Jernigan (F)	1	7 hours – 55 minutes
Daniel "Dan" Burbank (A)	1	7 hours – 11 minutes
Carl Meade (F)	1	6 hours – 51 minutes
Nicole Stott (A)	1	6 hours – 39 minutes
Andrew "Andy" Thomas (M)	1	6 hours – 30 minutes
Paul Richards (M)	1	6 hours – 21 minutes
Edward "Ed" Lu (F)	1	6 hours 14 minutes
Michael "Rich" Clifford (F)	1	6 hours – 2 minutes
G. David Low (D)	1	5 hours – 50 minutes
Timothy "Tim" Kopra (A)	1	5 hours – 02 minutes
Frank Culbertson (F)	1	5 hours – 4 minutes
John Phillips (F)	1	4 hours – 58 minutes
Jerry Linenger (F)	1	4 hours – 57 minutes
Michael "Mike" Barratt (A)	1	4 hours – 54 minutes
Bernard Harris (F)	1	4 hours – 39 minutes
Edwin "Buzz" Aldrin (F)	2	7 hours – 52 minutes
Mario Runco (M)	1	4 hours – 28 minutes
Donald "Don" Peterson (F)	1	4 hours – 15 minutes
David Leestma (M)	1	3 hours – 29 minutes
Kathryn Sullivan (F)	1	3 hours – 29 minutes
Joseph "Joe" Kerwin (F)	1	3 hours – 23 minutes
Stanley "David" Griggs (D)	1	3 hours – 6 minutes
Neil Armstrong (D)	1	2 hours - 31 minutes
Paul Weitz (F)	1	2 hours -11 mins
Kenneth "Ken" Mattingly (F)	1	1 hour 13 mins
Russell "Rusty" Schweickart (F)	1	46 minutes
Ronald "Ron" Evans (F)	1	1 hour – 6 minutes
Al Worden (F)	1	0 hours – 38 minutes
Richard Gordon (F)	1	2 hours – 44 minutes
Michael Collins (F)	1	1 hour – 27 minutes
Edward "Ed" White (D)	1	0 hours – 21 minutes

