



ROBERT L. “HOOT” GIBSON CONSULTANT

Mr. Gibson is a Consultant Pilot Expert and Aeronautical Engineer for Engineering Systems Inc. (ESi). He is a retired Navy pilot and Astronaut. He is rated as a Naval Aviator, Naval Test Pilot, and Naval Pilot Astronaut. Mr. Gibson was the Pilot on one Space Shuttle Mission, and Crew Commander on four other missions. He has FAA ratings for Airline Transport Pilot, Multi-Engine Land Aircraft, and Glider Rating. His aircraft Type Ratings include Boeing 737 and Beechcraft Premier and has Letters of Authorization in Mig-15, Mig-21, T-33, Fouga Magister, and Hawker Sea Fury Aircraft. He has accumulated over 13,000 hours flight time in more than 50 types of civilian and military aircraft, of which more than 9000 hours are jet and rocket power. Mr. Gibson has more than 300 carrier landings. His civilian experience includes light planes, sailplanes, and experimental racing and aerobatic aircraft. He has held 8 Aviation and Space World Records, 4 of which are still current, including the World's Record for the 100 km closed course which he earned flying his own airplane equipped with a wing that he designed and built. Mr. Gibson is a Fellow of the Society of Experimental Test Pilots and the Explorers Club.

Areas of Specialization

Pilot expert in general aviation and commercial airplanes
Flight testing
Aeronautical engineering
Aerodynamics, stability, and control
Aircraft accident investigation

Education

B.S., Aeronautical Engineering, California Polytechnic State University, 1969
A.A.S. Engineering, Suffolk County Community College, 1966

Professional Affiliations/Honors

Fellow, Society of Experimental Test Pilots

Fellow, Explorers Club

Fellow, Academy of Model Aeronautics

Board member, Aviation Safety Alliance, Air Transport Association

Space Advisory Group Member, Northrop-Grumman

August 2017

Experimental Aircraft Association

Reno National Championship Air Races, Fourth Place, Unlimited Class, "Gold Race", 2006.

Reno National Championship Air Races, Fourth Place, Unlimited Class, "Gold Race", 2005.

World Speed Record, Las Vegas to Wichita, Jet Airplane Class C-1E, September 2004.

Experimental Aircraft Association "Freedom of Flight Award", July 1989.

World Speed Record, Seattle to Las Vegas, Jet Airplane Class C-1E, September 2004.

Reno National Championship Air Races, Seventh Place, Jet Class, "Gold Race", September 2004.

Reno National Championship Air Races, First Place, Unlimited Class, "Silver Race", September 2004.

Honorary Doctor of Science Degree, University of California, San Luis Obispo, California, June 2004.

Reno National Championship Air Races, Fourth Place, Unlimited Class, "Gold Race", 2006.

Reno National Championship Air Races, Fourth Place, Unlimited Class, "Gold Race", 2005.

World Speed Record, Las Vegas to Wichita, Jet Airplane Class C-1E, September 2004.

Experimental Aircraft Association "Freedom of Flight Award", July 1989.

World Speed Record, Seattle to Las Vegas, Jet Airplane Class C-1E, September 2004.

Reno National Championship Air Races, Seventh Place, Jet Class, "Gold Race", September 2004.

Reno National Championship Air Races, First Place, Unlimited Class, "Silver Race", September 2004.

Honorary Doctor of Science Degree, University of California, San Luis Obispo, California, June 2004.

World Speed Record, 100 KM Closed Course, Airplane Class C-1A, April 2004.

Reno National Championship Air Races, Seventh Place, Unlimited Class, "Gold Race", September 2003.

Inducted in "The Astronaut Hall of Fame", Cape Canaveral Florida, June 2003.

Reno National Championship Air Races, Fifth Place, Jet Class, "Gold Race", September 2002.

Reno National Championship Air Races, Seventh Place, Unlimited Class "Gold Race", September 2002.

Honorary Doctor of Science Degree, Westminster College, Salt Lake City, Utah 2002.

NASA Awards include the Space Flight Medal, Exceptional Service Medal, Outstanding Leadership Medal, and four awards of NASA's highest ranking medal, the Distinguished Service Medal.

Military Decorations include; Defense Distinguished Service Medal, Defense Superior

Service Medal, Legion of Merit, Distinguished Flying Cross, Defense Meritorious Service Medal, Naval Commendation Medal with Combat "V", Vietnam Service Medal, and the Humanitarian Service Medal.

AirVenture Cup Race, 2001", First Place Reno Unlimited Class, Dayton OH to Oshkosh, WI, July 2001.

Reno National Championship Air Races, Third Place, Unlimited Class "Silver Race", September 1999.

Reno National Championship Air Races, Fifth Place, Unlimited Class "Silver Race", September 1998.

"AirVenture Cup Race, 1998", First Place Unlimited Class, Kitty Hawk, NC to Oshkosh, WI, July 1998.

NAA Aero Club of Northern California, "Crystal Eagle Award" 1997.

Federation Aeronautique Internationale "Komarov Diplome 1996".

Federation Aeronautique Internationale "Yuri Gagarin Gold Medal", 1996.

"Ten Most Memorable Record Flights of 1995".

National Aeronautic Association, Certificate of Honor, 1995.

Aviation Week Space Laurels, 1995.

AAS Flight Achievement Award, 1995.

Russian Republic Konstantin Tsiolkovsky Medal, 1995.

World Absolute Record, Spacecraft Altitude in Linked Flight, Atlantis-Mir, 1995.

World Absolute Record, Spacecraft Duration in Linked Flight, Atlantis-Mir, 1995.

World Absolute Record, Assembled Mass of Spacecraft in Linked Flight, Atlantis Mir, 1995.

World Record, Time to Climb to 9000 Meters, Airplane Class C-1A, 1994.

Federation Aeronautique Internationale "Komarov Diplome 1993".

Federation Aeronautique Internationale "Louis Bleriot Medal", 1992.

"Ten Most Memorable Record Flights of 1991".

National Aeronautic Association, Certificate of Honor, 1991.

World Record, Altitude in Horizontal Flight, Airplane Class C-1A, 1991.

Championship Air Races, Third Place, International Formula One "Silver Race", September 1989 - April 2004.

Reno National Championship Air Races, Seventh Place, Unlimited Class, "Gold Race", September 2003.

Inducted in "The Astronaut Hall of Fame", Cape Canaveral Florida, June 2003.

Reno National Championship Air Races, Fifth Place, Jet Class, "Gold Race", September 2002.

Reno National Championship Air Races, Seventh Place, Unlimited Class "Gold Race", September 2002.

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World Absolute Record, Assembled Mass of Spacecraft in Linked Flight, Atlantis-Mir, 1995.

World Record, Time to Climb to 9000 Meters, Airplane Class C-1A, 1994.

Federation Aeronautique Internationale "Komarov Diplome 1993".

Federation Aeronautique Internationale "Louis Bleriot Medal", 1992.

"Ten Most Memorable Record Flights of 1991"

National Aeronautic Association, Certificate of Honor, 1991.

World Record, Altitude in Horizontal Flight, Airplane Class C-1A, 1991.

Championship Air Races, Third Place, International Formula One "Silver Race", September 1989.

Positions Held

Engineering Systems Inc., Colorado Springs, Colorado

Consultant, 2007 to present

Aviation expert witness, 1999 to present

Investigate aviation accident cases and determine the relative merits and responsibilities of the parties involved. Experience in depositions and in courtroom testimony.

Member of the Northrop-Grumman Space Advisory Group, 1999 to present

Work with team members to structure Northrop-Grumman programs to maximize success in development of future space vehicles. Evaluate contract proposals and work with various teams to incorporate prior space experience and lessons learned.

Aerospace consultant and professional speaker, 1996 to present

Performed independent assessment of the NASA X-38 Crew Return Vehicle. Participated in proposal preparation for Aerojet Corporation on a Deorbit Module for X-38. Speaker at many forums dealing with teamwork, motivation, quality control, and aviation and space experiences.

Captain and First Officer, Southwest Airlines, 1996 to present

Fly and operate the Boeing 737 in scheduled and unscheduled Airline operations.

Deputy Director, Flight Crew Operations Directorate, October 1995 to November 1996

Second in command of the Directorate with responsibility for all NASA Houston Aircraft Operations, as well as the Astronaut Corps. Oversaw a varied mix of operational and research aircraft with an annual operating budget of more than 45 million dollars, and oversaw the activities of more than 140 Astronauts.

Crew Commander, Space Shuttle Mission STS-71, 1994 to 1995

Commanded a crew of six American Astronauts and four Russian Cosmonauts to perform the first Docking by a Space Shuttle to the Russian Space Station "Mir." Developed training plans, operations requirements, and political and protocol requirements for this unprecedented mission. Flight was flown successfully from June 27 to July 7, 1995.

Chief Astronaut, December 1992 to 1994

Division Chief with overall responsibility for 113 Astronauts and more than 40 support personnel. Worked personnel issues, training, budgets, personnel evaluations and career planning, as well as support for Space Shuttle flights, crew selection, and crew assignment.

Crew Commander, Space Shuttle Mission STS-47, 1992 to 1992

Managed crew training and duty assignments for a seven-member Space Shuttle crew, including an International crew member from Japan. The flight was primarily sponsored by Japan and required awareness and sensitivity to the many cultural differences present, both during the training flows, as well as in-flight and after the mission. The flight was performed very successfully from September 12-20, 1992, and conducted over 40 different experiments in Life Science and Materials Science aboard the Space Shuttle "Endeavour".

Host and co-anchor, TV show "Today in Space", a daily television update during Space Shuttle mission

STS-40. Served as narrator and host, performed live TV interviews, and analyzed the progress of the flight from start to finish in a live daily TV show. Worked as a member of the production staff as well to develop scripts and tape segments to be used in the live broadcasts. Episodes were performed daily from June 6 to June 13, 1992.

Space Shuttle Program Representative, Orbiter Project Representative, 1990 to 1992

Represented the interests of the Astronaut office with the major control boards of these two programs. Responsible for determining the astronaut office perspective on all issues presented for consideration at these boards, providing inputs to the managers of the two programs.

Safety Branch Chief, 1989 to 1990

Head of the Safety Branch for the Astronaut Office with the responsibility to manage safety inputs and review on behalf of the Astronaut Office. Participated in engineering and hazard analyses in support of Space Shuttle flights.

Crew Commander, Space Shuttle flight STS-27, 1988 to 1989

Commander of a crew of five astronauts assigned to a classified Department of Defense Space Shuttle flight. Managed the crew training requirements and crew involvement for development and testing leading to flight. Developed procedures and checklists to successfully perform the mission to accomplish objectives critical to National security. Mission was flown successfully from December 2-6.

Solid Rocket Booster Redesign Team, 1986 to 1988

Team Leader for the astronaut team supporting the redesign effort to fix the deficiencies found in the booster rockets for the Space Shuttle. Participated in design studies and reviews, failure analyses, and concept definitions for the redesigned boosters, as well as the test plan to requalify the booster rockets for flight. Monitored full-scale development and testing leading to flight.

Space Shuttle "Challenger" accident investigation team, Kennedy Space Center, 1986 to 1986

Participated in the post-accident investigation to evaluate the processing of the External Tank and the Solid Rocket Booster elements as potential causes of the accident.

Crew Commander, Space Shuttle Flight STS-61C, the Twenty-fourth mission of a Space Shuttle, 1985 to 1986

Commander of a crew consisting of seven astronauts including the only United States Congressman to fly aboard a Space Shuttle. Responsible for the overall training, duty assignments, and overall management of the crew, as well as command of the mission inflight. Mission was successfully flown January 12-18, 1986.

Deputy Division Chief, NASA Aircraft Operations Division, 1984 to 1985

Resumed the duties of Deputy Chief after completion of Space Flight in February 1984.

Pilot, Space Shuttle Mission 41-B, 1983 to 1984

Trained and flew the Tenth Space Shuttle mission February 3-11, 1984. Second in command of the flight which launched two Communications Satellites valued at 200 million dollars each, tested Shuttle rendezvous equipment for the first time, performed the first-ever untethered spacewalks, and made the first landing by a Space Shuttle at the Kennedy Space Center in Florida.

Deputy Division Chief, Aircraft Operations Division, 1982 to 1983

Deputy Chief of the division responsible for maintenance and operation of NASA aircraft assigned to Johnson Space Center. Division consisted of over 300 people, over 35 aircraft, annual operating budget over 35 million dollars. Managed personnel issues, training, flight support for Space Shuttle launches, Flight Readiness Reviews, as well as Aircraft maintenance and Facilities upkeep.

Team Leader, Astronaut Support Team to Shuttle Avionics Integration Laboratory, 1981 to 1982

Lead Astronaut in charge of a team of 15 astronauts supporting testing in lab to certify computers and software for flight. Managed support requirements for testing, training new astronauts, scheduling test support, and reporting of results.

Team Leader, Space Shuttle Airborne Chase Team for second Space Shuttle flight, 1981

Leader of team of 6 astronauts and technicians responsible for airborne chase and escort of second Space Shuttle mission. Trained all team members, coordinated support requirements and logistics for training and flight support, as well as budget for the team. Flew escort for the mission from November 12-14, 1981.

Test Pilot, Shuttle Avionics Integration Laboratory, 1980 to 1981

Designed test profiles, flew simulated missions in avionics test laboratory to evaluate Space Shuttle systems and software in simulated flight environments.

Space Shuttle Airborne Chase Pilot for first Space Shuttle Flight, 1979 to 1981

Developed procedures and maneuvers necessary to rendezvous with and escort Space Shuttles returning from orbit to landing. Flew training missions, trained controllers, designed flight profiles, and flew chase for the first Space Shuttle flight April 12-14, 1981.

Vehicle Processing Team, 1979 to 1980

Member of Space Shuttle Orbiter processing team for the first Space Shuttle flight. Designed and reviewed procedures to test the vehicle and its systems prior to first flight, conducted hardware tests as a crew member, and coordinated with engineers and test team to support crew training and scheduling.

Support Crew for Space Shuttle flight 3, 1979 to 1980

Worked on operations, flight design, procedures and mechanization of systems in support of the mission scheduled to perform the reboost of the Skylab vehicle.

Astronaut, NASA Johnson Space Center, Houston, Texas, 1979 to 1996

Work experience as listed, all within assignments at NASA.

Astronaut Candidate, NASA Johnson Space Center, Houston, Texas, 1978 to 1979

Instruction in all aspects of Space Flight and Space Shuttle operation leading to designation as Astronaut in July 1979.

Test Pilot, Strike Aircraft Test Directorate, NAS Patuxent River, Maryland, 1977 to 1978

Experience in flight testing F-14A aircraft including first flight and flight envelope expansion and demonstration of reconnaissance version of the F-14A. Flight tests of engine failure and flight control system failure characteristics to evaluate causes of F14A accidents in squadron use.

Fighter Squadron 124, Instructor Pilot in Fleet Replacement Squadron, NAS Miramar, California, September 1975 to 1976

Trained pilot and radar operator replacement aircrews on the F-14A aircraft, including classroom lectures and flight instruction. Work experience as Instructional Systems Development Officer, responsible for development of training materials and lectures. Experience in Flight Simulator requirements definition, development and testing for three major F-14A Flight Simulators.

Fighter Squadron 1, Pilot in first F-14A Fighter Squadron homebased at NAS Miramar, California, 1973 to 1975.

One cruise aboard Aircraft Carrier USS Enterprise. One combat mission in Southeast Asia in support of Operation Eagle Pull, the evacuation of Saigon. Work experience as Personnel Officer and Aviation Electrical Division Officer.

Fighter Squadron 111, Pilot of F-4B Fighter-Bomber Aircraft homebased at NAS Miramar, California, 1972 to 1973

Two cruises aboard Aircraft Carrier USS Coral Sea.
Flew combat missions in Southeast Asia in support of Operation Linebacker, 1972. Work experience as squadron communications officer, weapons training and tactics officer, squadron scheduling officer.

Engineering Assistant, Aerodynamic Loads Division, NASA Dryden Flight Research Center, Edwards AFB, California, 1968.

Laboratory Instructor, Aeronautical Engineering Department California Polytechnic State University, San Luis Obispo, California, 1967 to 1968.

Publications/Presentations

"The End of Innocence", Space Shuttle, The First 20 Years, Smithsonian Institution, DK Publishing Inc., 2002.

"Mig Pilot", Oshkosh Memories, Writer's Club Press, 2000.

"The First Space Shuttle to Mir Docking", The Society of Experimental Test Pilots, Proceedings, 1995.