



**CORPORATE RESUME**

**Including**

**Capabilities Statement**

**Employee Biographies**

**and**

**Consultant Biographies**

*For more information call us at 505-217-2462, or email us at [wnwhite@spacebooster.com](mailto:wnwhite@spacebooster.com)*

318 Isleta Blvd. SW, Suite 109, Albuquerque, NM 87105-3822



## Capabilities Statement

CODES AND ID NUMBERS			
<b>NAICS Codes</b>	541330 – Engineering Services	<b>CAGE Code</b>	6KE70
	541712 – R&D, Engineering & Physical Sciences	<b>DUNS Number</b>	968968136
	541690 – Other Scientific, & Technical Consulting 541990 – All Other Professional, Scientific & Tech Services	Aerospace Science and Engineering Services Research & Development Systems Engineering Spacecraft Design Space Operations Policy Analysis Space Law	
927110 – Space Research & Technology			
541611 – Admin. Management & General Management Services			
541618 – Other Management Consulting Services			
928110 – National Security			
928120 – International Affairs			
541199 – All Other Legal Services			
CERTIFICATIONS			
Veteran-Owned, HUBZone Small Business			

*SpaceBooster LLC* is a Texas Limited Liability Company, registered to do business in New Mexico. SpaceBooster is a veteran-owned, HUBZone certified small business. The company’s office is located in the South Valley Economic Development Center, a business incubator operated by the Rio Grande Community Development Corporation, a non-profit organization in Bernalillo County, New Mexico.

Wayne White is President & CEO of SpaceBooster, and a USAF veteran. Mr. White has a B.A. from Chapman University; M.Admin. in Business Administration, University of California, Riverside; J.D. (law degree), University of California, Davis; and Certificate in Government Contracts Management., UCLA. Timothy Paul, Col. US Army is SpaceBooster’s V.P., Program Management. Col. Paul has a B.S., Computer Science/Psychology, University of New Mexico; M.A., Strategic Studies, U.S. Army War College; and M.S., Space Operations, Embry-Riddle Aeronautical University. Mr. White and Col. Paul have many years of aerospace management experience.

**Engineering and Scientific Consulting Services:** SpaceBooster teams consultants to bid on projects, provides consulting services to government and industry, and staffs aerospace and defense proposal efforts. SpaceBooster’s experienced team of distinguished consultants all have prior experience performing work for NASA and/or the U.S. military.

**Space Law and Policy Consulting Services:** SpaceBooster also performs aerospace and defense legal, regulatory, legislative, and policy analysis. SpaceBooster’s legal and policy consultants are all senior subject matter experts with impressive experience and credentials.

**Why SpaceBooster?.** SpaceBooster has a low-cost business structure. It provides employment for aerospace professionals during a period of NASA transition, and keeps government and contractors' costs low during a period of reduced government spending.

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## Employees



**Wayne White** is owner, President & CEO of SpaceBooster. Mr. White is a government contracts attorney with aerospace management experience. He is also a recognized expert in national and international space law. Mr. White has Bachelor's degrees in Psychology, and Business Administration from Chapman University, a Master's degree in Business Administration from University of California, Riverside, a law degree from University of California, Davis, and a Certificate in Government Contracts Management from UCLA. He is licensed to practice law in California and Colorado. Prior to SpaceBooster, Mr. White was employed as Manager of the Contracts and Purchasing Department, and Contract Manager, NASA Constellation Space Suit System prime contract, at Oceaneering Space Systems in Houston, Texas; Associate Director, National Remote Sensing and Space Law Center, University of Mississippi School of Law in Oxford, Mississippi; Associate Campus Counsel, UCLA Capital Programs/Contracts, and Member, General Counsel's Office, University of California, in Los Angeles, California; Real Estate Attorney, Winchell's Donut Houses Operating Company, LP, in La Mirada, California; and as an attorney in private practice, in Denver and Boulder, Colorado. Mr. White represented the United States as a member of the U.S. State Department Delegation to the United Nations Committee on the Peaceful Uses of Outer Space, Legal Subcommittee meeting in 2003, and served as a Director of the National Space Society from 2000 through 2004. He Chaired the National Space Society's 21<sup>st</sup> annual International Space Development Conference at the Denver Tech Center Marriott Hotel in 2002. Mr. White is the author of numerous published articles, and is a frequent speaker on space law and policy topics.

**Areas of Expertise:** Government contracts management; space law and policy; "big-picture" technology ideas.

**Timothy Paul** is Vice President, Project Management at SpaceBooster. Col. Paul is a career U.S. Army officer with expertise leading large organizations, conducting strategic engagement, weapons control, counter insurgency, homeland security and aviation operations that span strategic, operational, and tactical levels. He has planned and conducted strategic counter insurgency operations in Iraq with Iraqi, U.S. and coalition forces. He has planned, led and conducted security, weapons control and counter drug operations throughout Central and South America and led, planned and executed tactical aviation operations worldwide. He has assisted in the development and implementation of complex ISR technologies, systems, procedures, as well as strategic and tactical employment, use and analysis of data and information, and has implemented supporting security and threat reduction procedures and techniques. Developed, implemented and enforced Safety, OSHA and fire and accident safety and prevention programs. Col. Paul has a B.S. in Computer Science/Psychology from the University of New Mexico, an M.A. in Strategic Studies from the U.S. Army War College, and an M.S. in Space Operations from Embry-Riddle Aeronautical University. Col. Paul, who is nearing retirement from the Army, currently serves as G3 Director Plans, Operations, and Training for the New Mexico National Guard in Santa Fe, New Mexico. He has previously served at the New Mexico National Guard as Director, Army Aviation and Safety; Director of Military Personnel (J1/G1); Counter Drug Operations Coordinator; Deputy Commander, 111th Maneuver Enhanced Brigade; and Chief, Iraqi Army Transition Team. He is currently certified by the FAA to fly Commercial Instrument Rotary Wing Aircraft, and Commercial Instrument Multi-Engine Airplanes.

**Areas of Expertise:** Project management; space operations; ISR; military operations; military strategy, tactics, and policy.



**Paul Fuller** is Manager, Accounting and Administration for SpaceBooster. He is proficient in the use of CCAS Light 2 government contracts accounting software, and Pro-Pricer government contracts pricing software. He also advises SpaceBooster on social media marketing, and provides writing and editing support for proposals and studies. He has a Bachelor's degree in Business Administration, with a concentration in accounting, from California State University, Monterey Bay. Mr. Fuller currently serves as Accounts Manager for the Salinas Valley Chamber of Commerce, as Finance Manager for the Space Frontier Foundation's annual New Space Conference, as Social Media Director for the Space Tourism Society, and as a financial and marketing aerospace consultant for entrepreneurial space companies. He has previously been employed as a Business Operations Management intern at Defense Manpower Data Center (DMDC), and as a Financial Operations intern at the City of Salinas.

**Areas of Expertise:** Accounting, writing, business operations, and marketing.

## Consultants



**George Abney** is a writer/editor and researcher, with 14 years of experience teaching writing at the college level, and experience as a technical writer (among other things). Mr. Abney has a B.S. in English/Psychology of Communications from Northern Arizona University, an M.A. in English-Technical Communications from Northern Arizona University, and a Certificate in Project Management/Major Item Management from the U.S. Army Logistics Management College. Mr. Abney is a service-disabled veteran. He served four years in the U.S. Air Force on active duty, and three years in the U.S. Naval Reserves. He has worked as a physical science technician for the U.S. Navy civil service; and as a technical writer/editor for the U.S. Army civil service.

**Areas of Expertise:** Technical writing/editing, research, contract management, and “big picture” technology ideas.



**Bob Alexander** is an electrical engineer with many years of experience in systems engineering and engineering management. He has a B.S.E.E. in engineering management from the University of Texas at Austin. Mr. Alexander is an engineering manager for AtechSpace Consulting LLC. He is currently working with NanoRacks to provide opportunities for access to Space via foreign and domestic launch providers for science and satellite programs. At AtechSpace he previously provided systems analysis for the Cameron legal team on the Blow-out Preventer which was involved in the Deepwater Horizon offshore incident, and he also provided program leadership and consulting to NASA's Orion Program for systems assurance activities. Prior to AtechSpace Consulting, Mr. Alexander served as V.P. Operations Safety and Assurance at SpaceHab, Inc.; Deputy Department Manager SR & QA at Lockheed Martin; and Deputy Division Chief at NASA- Johnson Space Center. At SpaceHab, Mr. Alexander organized and developed the Operations, Safety and Assurance function for SPACEHAB mission hardware. He was also responsible for Export Control, Facility Operations and ESH in Florida, Texas and California. At Lockheed Martin, he managed the department design safety and assurance as well as ESH functions. He provided project management for the development of a thermal tile repair material for the Space Shuttle, and worked on proposal development for a variety of projects, serving as proposal manager and proposal volumes manager. At NASA-JSC, Mr. Alexander provided leadership for International Space Station negotiations with the Russian Partners, product assurance, and cargo/payload safety. He was Manager for International Space Station Government Furnished Equipment, Chairman, Safety & Mission Assurance Review Team, Deputy Division Chief for SR&QA Space Station Division, Branch Chief for SR&QA Payload and Crew Equipment Branch, Mission Operations Safety Operations Division Staff, Payload Safety Review Panel Member, and Space Shuttle Payload Safety Engineer. He was responsible for spacecraft payload systems and equipment certification used in the International Space Station and the Space Shuttle.

**Areas of Expertise:** Project/Program Management; Systems Engineering; Electrical Engineering; SR & QA; Proposal Management and Writing. [Personal Website](#)



**Joyce Carpenter** earned a Bachelor of Aerospace Engineering in 1972 and a Master of Science in Aerospace Engineering in 1978, both from The Georgia Institute of Technology. She began her career in 1975 at the Lockheed-Georgia Aircraft Company (now Lockheed Martin Aeronautical Systems), where she held positions in the structures and operations analysis organizations. Following completion of Lockheed's general management development program, she supervised system engineers engaged in developing designs for new transport and combat aircraft. Ms. Carpenter joined NASA's Johnson Space Center in 1990 as a manager for mission analysis and systems engineering in the Exploration Programs Office. Additional assignments with NASA include Chief of Staff for the International Space Station Headquarters Office, manager of advanced development for robotic systems, and manager of system engineering for the Assured Crew Return Vehicle project. Ms. Carpenter also served as the Manager of the Advanced Design Office in the Engineering Directorate at the Johnson Space Center. During her tenure as manager, the Advanced Design Office was responsible for developing conceptual designs and evaluating alternative approaches for strategies and technology investment plans to support human missions to the moon and to Mars. Before retiring from NASA in 2006, Ms. Carpenter served as the Dean of the Johnson Space Center Engineering Academy.

As a supervisor, mentor, and coach for systems engineers at NASA, Ms. Carpenter developed an interest in improving the tools and methods that are used to teach systems engineering principles as applied to complex system design. Her continuing interest is in creating innovative approaches for professional development curricula for use by practicing systems engineers. Since her retirement, Ms. Carpenter has served as a consultant to NASA in the areas of advanced design, mission architecture development, and requirements analysis. Her extensive experience in advanced design, especially in the areas of mission architecture development, functional analysis, and requirements definition make Ms. Carpenter uniquely qualified for consulting opportunities in the early stages of spacecraft design development.

**Areas of Expertise:** Systems engineering, spacecraft and robotics research, design & development, mission architecture development, requirements analysis, engineering education.



**Paul E. Damphousse** is Executive Director of the National Space Society. Lt. Col. Damphousse (USMC Ret.) attended the University of Arizona on a Navy ROTC scholarship and graduated in 1989 with a B.S. in Management Information Systems.

Lt. Col. Damphousse completed flight training and was designated a Naval Aviator in July 1992. In May 1993, he was designated a Helicopter Second Pilot in the CH-53E Super Stallion helicopter and was assigned to Marine Heavy Helicopter Squadron (HMH)-462 at Marine Corps Air Station Tustin, CA. He was designated an Aircraft Commander in August 1994.

During his time with the Heavy Haulers of HMH-462, Lt. Col. Damphousse completed a six-month deployment to Okinawa, Japan as part of the Unit Deployment Program. He also participated in two shipboard deployments to the Western Pacific and Persian Gulf with the 13th and 15th Marine Expeditionary Units aboard the USS Peleliu (LHA-5).

In May 1998, Lt. Col. Damphousse reported to Headquarters, Third Marine Aircraft Wing (3d MAW) at MCAS El Toro, California. Here he served as the Aviation Safety Officer and participated in the movement of 3d MAW to its new home at MCAS Miramar, California. In October 1998, after completion of Tactical Air Control Party training and subsequent designation as a Forward Air Controller, Lt. Col. Damphousse was assigned to the Wolfpack of HMH-466 where he served as Quality Assurance Officer.

In November 1998, Lt. Col. Damphousse was selected to attend the Naval Postgraduate School (NPS) in Monterey, California. He graduated in December 2001 with a M.S. in Astronautical Engineering. Upon graduation and designation as a Marine Corps Space Operations Officer, Lt. Col. Damphousse was transferred to the Operations Directorate (J32) of United States Space Command in Colorado Springs, CO. Here he served as a Space Control and Special Technical Operations action officer and was involved in operational planning for Operations Enduring Freedom and Iraqi Freedom.

Lt. Col. Damphousse reported to the Flying Tigers of HMH-361 at MCAS Miramar in December 2003 as the squadron operations officer and deployed to Iraq in support of Operation Iraqi Freedom II in August 2004.

Following his time with the Flying Tigers he assumed the role of Director of Safety and Standardization for Marine Aircraft Group (MAG)-16. Between combat deployments he completed a tour in the Defense Advanced Research Projects Agency (DARPA) Service Chief's Internship Program. Here he investigated programs relevant to current Marine Corps operations and future warfighting concepts as well advanced space programs and concepts.

Lt. Col. Damphousse returned to Iraq on his second combat deployment in February 2006. Shortly after his arrival he assumed the role of Operations Officer for MAG-16. In this capacity he was responsible for the daily planning and execution of combat operations for all

Marine aircraft in Iraq, representing every USMC type/model/series aircraft and the largest MAG in Marine Corps history.

Upon his return to the U.S. in February 2007, Lt. Col. Damphousse was assigned to the National Security Space Office (NSSO) in Washington, DC initially as the Chief Engineer for the Spacecraft Communications Functional Integration Office. Shortly after his arrival he created and led the NSSO's Advanced Concepts Branch. Here he assumed the lead for the NSSO's efforts to advance Space-Based Solar Power capabilities and created a concept of operations and technology roadmap for the Marine Corps' Small Unit Space Transport and Insertion (SUSTAIN) concept. He also led the NSSO's effort to leverage and catalyze emerging space access and suborbital capabilities for the entire National Security Space enterprise. In 2008 he was selected a second time as a Marine Corps Astronaut Candidate.

In September 2009 he was hand-picked to serve as Florida Senator Bill Nelson's NASA Fellow. In this capacity he advised the Senator on all civil and national security space matters, and played an instrumental role in advancing new commercial spaceflight activities.

In his last assignment prior to retirement, Lt. Col. Damphousse returned briefly to the Pentagon as the NSSO was reorganized into the Executive Agent for Space Staff and served within the newly-formed Defense Space Council Secretariat.

**Areas of Expertise:** Experienced leader/manager of advanced concepts research studies, advanced concepts design & development, space operations, space policy, project/program management.



**Jeff Davis** is a Civil Engineer, with IT hardware and software experience that is broad and deep. Mr. Davis has a B.S. in Civil Engineering from the University of Florida, and he is a Microsoft Certified Systems Engineer (MSCE 101). He previously worked as a Field Engineer at NASA-Kennedy Space Center, Dryden Flight Research Center, and Dryden Air Operations. In his job as a Field Engineer, Mr. Davis deployed a range of IT equipment including PC and MAC workstations, server migrations, and installation, at Kennedy Space Center, Dryden Flight Research Center, and Dryden Air Operations Facility for HP, EDS, and ACES. He was a troubleshooter of sorts, solving problems on the fly to assure 100% end user satisfaction across a vast array of different hardware styles, operating systems, and devices (PC, MAC, Smart Phones, Tablets, and any kind of server you can think of). He has experience with management and deployment of Cisco enterprise level switches and routers, and experience troubleshooting over 150 different software packages. He can do hardware level repairs of a level 3 nature, and is not afraid of a soldering gun. Prior to his NASA position, Mr. Davis was a Civil Intern through the People to People Student Program at Tyburn Engineering Ltd. in London in 2007, 2008, and 2009. At Tyburn, he worked on infrastructure upgrades for the 2012 Olympic Stadium Project.

**Areas of Expertise:** IT hardware and software engineering, installation, troubleshooting, and repair.





**James Doehring** has a strong foundation in mechanical & aerospace engineering and is committed to playing a leadership role in the space program. He holds a M.S. in Space Architecture from the University of Houston and a B.S. in Mechanical and Aerospace Engineering from Cornell University. Mr. Doehring has written over 150 articles for [wisegeek.com](http://wisegeek.com) on diverse topics in science and engineering. He authored publications on lunar dust mitigation and the application of deep-water simulation tools to space exploration. He also wrote a full-length Wikipedia article on space architecture. As an engineer at Oceanering Space Systems, Mr. Doehring tested the effects of lunar dust simulant on

electrical connectors and helped prepare the Orion vehicle's Crew Module Uprighting System for Preliminary Design Review. As a research associate at NASA's Marshall Space Flight Center, he analyzed engineering materials subjected to extreme environments. Mr. Doehring designed, built, tested, and integrated the hip spring for the Cornell Ranger, a bipedal robot that walked a world record distance of over 40 miles.

**Areas of Expertise:** Newtonian mechanics, computer modeling & animation, CAD using Pro-E or SolidWorks, computer programming, technical presentations, technical & popular writing.



**Christopher Dreyer** is a research engineer who bridges the gap between science and engineering. He holds a Ph.D and M.S. in Mechanical Engineering from the University of Colorado, and B.S. in Mechanical Engineering and Mechanics from Drexel University. He is an Assistant Research Professor at the Colorado School of Mines, where he has been Principal Investigator (“PI”) of several successful research grants. His expertise spans a wide range of fields, from energy conversion systems, laser and optical diagnostics used to study flowing, chemically-reacting systems, instruments for space exploration, mechanics, automation, and *in situ* resource utilization (ISRU) processing systems. He has been the PI or Co-PI of over a dozen funded research grants, and PI of 4 NASA grants

for the early phase development of instrument concepts for space exploration via NASA PIDDP and ASTID programs. Dr. Dreyer's expertise in instrument methods for space exploration, and energy-system instruments include laser induced breakdown spectroscopy (LIBS), laser absorption spectroscopy such as cavity ringdown spectroscopy, raman spectroscopy, and emission spectroscopy. His has also conducted research on automated sample-handling systems, lunar regolith separation systems, and lunar regolith simulant formulation. Dr. Dreyer has served on review panels for NASA instrument development programs PIDDP, ASTID, ASTEP, and MMAMA. Dr. Dreyer has authored over 70 papers published in journals and conference proceedings, in addition to holding one patent.

**Areas of Expertise:** Science and technology, mechanical engineering, laser spectroscopy, optical measurements, energy conversion systems, space *in situ* resource utilization processing systems, technical and scientific writing, proposal writing.



**Derek Feld** is an aerospace engineer with broad knowledge, and a deep understanding of engineering. Mr. Feld recently received his B.S in Aerospace Engineering from State University of New York at Buffalo, with Latin honors. He has proved his ability to understand and apply his engineering skills in both an academic and physical environment. Throughout his freshman and sophomore years at Buffalo, he helped keep the SUNY Buffalo Mini Baja team successful. On the team, he machined parts out of various materials in the machine shop, and helped design and test different configurations of the cars' steering and suspension system. In his senior year, Derek successfully mapped the scan pattern of the Wilkinson Anisotropy Probe Spacecraft (WMAP), using MATLAB simulations. In his spare time, Derek builds and flies scale radio-controlled airplanes. He is an avid learner, who enjoys helping the future of aviation and aerospace become a reality, today.

**Areas of Expertise:** Aerospace engineering, Mechanical engineering, science and technology, MATLAB programming, 3-d modeling using ProEngineer, 2-d drawings using AutoCAD, problem solving.



**Ed Gibson** is a record-setting astronaut, corporate leader, versatile consultant and experienced speaker.

For fifteen years, Dr. Gibson served as a NASA Astronaut where he established the American record of 84 days in space on Skylab III after being selected by NASA from 2,000 applicants. He also was on the support crew for Apollo 12 and developed lunar space-walk timelines and procedures with the prime crew and served as their Capcom while they explored the Moon. He has received the Distinguished Service Medal from NASA and was inducted into U.S. Astronaut Hall of Fame.



Recently, Dr. Gibson was Chairman of NASA's Orion External Independent Standing Review (SRB) and a member of the Constellation SRB. Previously as a Senior Vice President at SAIC Inc., he managed their \$180-million Technical Support Contract at the EROS Data Center in Sioux Falls, SD and their General Sciences Operation in Washington, DC.

Previously he was President of Gibson International, Inc. and the Oregon Museum of Science and Industry, a Vice President at Aviation Management Systems, a Principal at Booz Allen and Hamilton, Inc. and Program Manager at TRW, Inc.

Dr. Gibson holds a Ph.D. in Engineering/Physics and M.S. in Engineering/Rocketry from the California Institute of Technology and a B.S. in Engineering from University of Rochester. He has published a solar physics text book, technical papers and two novels.

**Areas of Expertise:** management performance and consulting, aerospace technical programs, human spaceflight, and speaking on leadership, motivation and space adventure.



**Joe Gillin** brings over thirty years professional experience supporting space vehicle systems engineering, mission operations, simulation and software for Satellite Servicing Capabilities missions, Hubble Space Telescope (HST) and other NASA and USAF missions while employed at Lockheed Martin. Mr. Gillin earned a M.S. and B.S. in Physics from Drexel University and St. Joseph's University, respectively. His mission operations experience includes free-flying experimental satellites, Inertial Upper Stage missions, and Hubble Space Telescope Shuttle servicing and flight software uploads. He has worked in systems engineering performing risk management of Satellite Servicing Capabilities missions and payload flight safety support of the successful HST Servicing Mission 4. He worked as a Software Test Engineer performing acceptance tests for flight software updates for the Hubble Space Telescope HST486 and DF224 computers and as a Software Systems Engineer analyzing deficiency reports for the Milstar Mission Control Segment. He was an Orbit Analyst, Simulation Engineer, and Vehicle/Planner Analyst at the Air Force Satellite Control Facility (AFSCF) in Sunnyvale, CA. He also participated in proposal writing for USAF Space Test & Engineering Contract (1987).

Passionate about our future in space, Mr. Gillin actively participates in the space community as a member of the American Institute of Aeronautics and Astronautics, the American Astronautical Society and other organizations. He serves on the Board of Directors of ProSpace and has participated in presenting space policy issues on Capitol Hill and has served on the planning committee (2010 - present) for the Goddard Symposium held each year in Greenbelt, MD.

**Areas of Expertise:** Systems engineering, payload flight safety, risk management, mission (vehicle systems) team leadership, real-time mission operations and replanning, systems telemetry, contract proposal writing, orbit analysis, and flight software testing.



**Ruwaida Haddad PhD** is highly qualified with 25 years' experience in project management, information systems engineering, space science, fluid mechanics processes, instrumentation and automation, polymer reactions and microencapsulation, microbial cultures and energy generation. She has also experience in tissue engineering, laboratory management and clinical research. Recipient of a Ph.D. of Biochemistry & Instrumentation and M.S. in Clinical Chemistry from Auburn University, she previously received two Bachelor's degrees from University of Illinois at Chicago in Chemistry and Biology as well as Engineering Certifications: Project Engineer in System Engineering and Project Management in Systems Engineering from JACOBS (ESCG Contract at NASA/JSC). Appointed full Project Director for five NASA contracts, Dr. Haddad led teams of up to 38 personnel in the design, development, fabrication and certification requirements of NASA flight hardware. She is also experienced in outsourcing contracts/manufacturing—realizing 73% increases in revenue by implementing automation & supervising processes. She prepared and presented recommendations for projects supported for resources, schedules and budgets. Dr. Haddad received Several Individual and Team awards as well as two Barrios BEAR Award nominations for achieving many projects' goals with high quality products while remaining both under-budget and before-deadline.

**Areas of Expertise:** Principal scientist, systems engineering lead, cross-functional team leadership, proposal writing, process improvement, risk management & quality assurance, project control, biomedical clinical research, lab management, and outsourcing management.



**Mark Holderman** is a highly effective Senior R&D and Engineering Leader, who meets challenges head-on and creates positive change. He also is a highly creative engineer/researcher, with a strong commitment to performance excellence. A commissioned US Navy aviation officer, Mark also holds a B.S. in Physics from Westmont College and has completed coursework in Plasma Physics at the Naval Post Graduate School, Monterrey, California. During the Space Station redesign period of the mid-90s, he led an independent team from JSC that presented the Concept D (GEODE Commercial/Industrial Process & Applications Platform) to the Space Station Redesign Team at NASA Headquarters. During space shuttle program operations, he was the Principle Investigator for the performance evaluation flight-experiment of the first nano/MEMS (Micro Electro Mechanical Systems) devices flown in space (STS-93), co-lead for the Development and Certification of a new Aluminum alloy for the External Tank (cryo LO2/LH2), team member for the project to refine new weld techniques for the new 2195-alloy, and co-lead for the structural load test analysis of a full-scale section of the External Tank LH2 tankage. Mr. Holderman was the Deputy Project Manager for a Shuttle-Derived Heavy Lift Launch Vehicle Phase-A design proposal. He also is the creator/designer of the Nautilus-X, Human Exploration spacecraft, and the first Human Habitable Centrifuge for the International Space Station.

**Areas of Expertise:** Spacecraft design (structures, guidance navigation & control, configuration, and electro-optics), systems engineering & integration, verification/validation for hardware and software, requirements generation, proposal writing, cryogenic systems, nanoMEMS, communications, and radar.

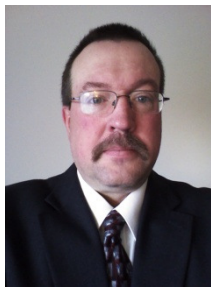


**Bob Lancaster** has demonstrated success in leadership to apply advanced technologies to the operationalization of space for humankind. As a graduate of the U.S. Air Force Academy, he now serves as President of the Texas Space Alliance. Previously, he worked as Technology Officer at H.Q. U.S. Central Command and as a Staff Officer/Branch Chief at USAF Force Protection Battlelab/Innovations Division/Branch. His role as an Advocate with Space Frontier Foundation demonstrates his long-term vision for space. His project experience includes evaluation of ScanEagle UAV for use in CONUS ICBM complexes and evaluation of Scintrex Trace explosives detector for large vehicles.

**Areas of Expertise:** Physical security, risk management (vulnerability, criticality, & threat assessments), requirements analysis, antiterrorism planning, and project management.

**Douglas Messier** is an innovative search engine optimization specialist with 5 years of experience in analyzing and improving Yahoo's search results with 12+ years of experience as an analyst, writer and researcher. Mr. Messier brings a unique viewpoint to aerospace with his B.A. in Journalism from Rider University and M.A. in Science, Technology, and Public Policy from George Washington University. As managing Editor at Parabolicarc.com, he update all the latest space news on a daily basis, writes original stories and analyses, and generates traffic to the site through Twitter, Facebook and other websites. As co-owner of SpaceJobs.com, he advises on website design and monetization after establishing the site as the world's largest online career resource for the aerospace, defense, and aviation industries. His work at Yahoo! as a Search Relevance Analyst set the groundwork for his knowledge of improving search results through rigorous relevance analysis. From this experience, he trained 150 analysts in relevance testing.

**Areas of Expertise:** Proposal writing and editing.



**Charles Mott** has a Masters degree in Space Studies from the University of North Dakota and a BSBA from Michigan Technological University. As an intern at NASA Ames research center, he worked on an automated vehicle health monitoring system by analyzing and documenting flight rules. He has worked at NASA Headquarters, supporting the Office of Program Analysis and Evaluation by developing processes for performance and accountability reports, strategic planning, and production of the NASA budget submittal. He has experience writing proposals in the private, government, and academic sectors. He is a co-editor and contributor to "System Health Management with Aerospace Applications" published by Wiley in 2011.

**Areas of Expertise**

Project management, scheduling (MS Project), work breakdown structures, technical writing / editing.

**David Myers** is experienced in helping companies win business with the federal government through proposal management with a focus on customer driven superior solutions. Trained in value proposition/value delivery systems, Mr. Myers holds a B.S. in Aeronautical Engineering (Flight Dynamics, Aerodynamics, Structures and Propulsion) from the U.S. Air Force Academy and an M.B.A. from University of Phoenix. He has won awarded contracts as large as \$1-billion and has worked at D Myers Consulting as a Principal, at ATK as a Capture Manager, at Lockheed Martin Space Systems Company as a Senior Proposal Manager, and at Lockheed Martin Space Systems Company as a Proposal Manager.

**Areas of Expertise:** Business capture, proposal management, and capture/proposal process.



**Bill Osgood** is a former Marine who started a CCR Registered, Service Disabled Veteran Owned and Veteran Owned Small Business—CFR & Associates—in 2004 with the goal of helping business owners create wealth and freedom from their business and invest in the lives of their employees. Core competencies Mr. Osgood ingrained in CFR include: developing strategic plans, systems and processes for businesses looking to sell, franchise, or market to the United States government; helping companies obtain government contracts and navigating through the government process; creating customized HR processes to help companies to select, hire, retain star employees without an extensive HR department; and helping executives to grow in their leadership roles by providing encouragement, coaching, and strategic development. His education includes a B.A. in political science from University of California, Los Angeles. In his current role a Certified Business & Executive Coach at CID & Associates, he works to aid small businesses in securing government contracts and all facets of winning government clients. In his past role as Area Director at BNI (Business Network International), he was responsible to help the business community find specialized groups to help them market and grow their business. Even his work as Dean of Strategy and Management at Joseph Business School allowed him to take an advisory role as he guided students from developing business plans to pitching final proposals to investors.

**Areas of Expertise:** Business coaching, mediation, facilitation, hiring and retention of employees, employee training programs, leadership development for management teams.



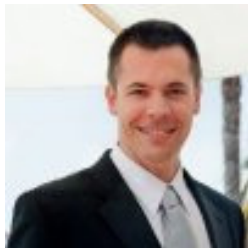
**Charles Phillips** seeks to participate where collaborative experiences can be utilized to do things better and safer than before. As a Freelance Writer at Yahoo! News, Lieutenant Colonel (Retired) Phillips shares insight from over 30-years' experience in aerospace. Starting with his B.S. in Physics and Mathematics from Angelo State University and M.S. in Space Operations from the Air Force Institute of Technology, Mr. Phillips built a career on mission operations, safety, training, and other areas. He started as an Orbital Analyst, tracking satellites at the NORAD Cheyenne Mountain Complex. Later, as a Technical Writer, he wrote Interface Control Documents for Space Station, and eventually transitioned over to support the Robotics branch of the Space Station Program Office. After completing increment plans for the Space Station in the Program Office, he switched to Mission Operations Directorate as a flight controller for Robotics. Colonel Phillips evaluated procedures and rules for Space Shuttle Flight Safety, and also developed Orion safety requirements.

**Areas of Expertise:** Mission operations, requirements definition, flight control, training, safety, system testing, and verification.



**Martin Schwab Ph.D.** has developed a knowledge base in space policy and its relation to American foreign policy. Dr. Schwab received his Ph.D. in Political Science from the University of Hawaii at Manoa, holds a Master of Public & International Affairs (M.P.I.A) in International Security Studies from the University of Pittsburgh, and has a B.A. in History from the University of Dayton. He has created a seminar format to facilitate small group deliberation within and among academia, industry and government. He presented, “International Relations of Planetary Defense” for the Aerospace Technology Working Group Forum in 2007, held in conjunction with the National Space Society's International Space Development Conference in Dallas. At the 2011 joint annual conference of the International Security Studies Section of the International Studies Association and the International Security and Arms Control section of the American Political Science Association (ISSS-ISAC), held in Irvine, California, he presented, “Addressing Global Insecurity within a Solar Systems Context.” He was a founding member of the International Association of Space Entrepreneurs in 2003 and is a member of the International Studies Association, the Mars Society, the National Space Society and serves as Advisor to the Board of Directors of Nightingale Montessori, Inc. in Springfield, Ohio. He lectured on American foreign policy at the University of Hawaii at Manoa in 2010 and is author of *Homeplanet Defense: Strategic Thought for a World in Crisis* (Infinity Publishing, 2005).

**Areas of Expertise:** Discussion facilitation, international relations of space exploration, and American foreign policy.



**Rob Sherwood** is a program and project manager with broad experience in project development and has published more than 60 technical papers, book chapters, and NASA-related technical reports. Mr. Sherwood holds a certificate in Technology Management from California Institute of Technology, an M.B.A. in Finance and International Business from Loyola Marymount University, M.S. in Mechanical Engineering from UCLA, and a B.S. in Aerospace Engineering from University of Colorado at Boulder. He received the NASA Exceptional Achievement Medal for leadership in June 2005 plus eight other NASA Achievement Awards for his work in Information Technology Development and Spacecraft Mission Operations, and was co-winner for the 2005 NASA Software of the Year award for the Autonomous Sciencecraft Experiment. He has worked as Chief Technology Officer at Pure Style LLC to develop new products and marketing strategies, a Program Manager at Moon Express in the Google Lunar X Prize competition, and Proposal Manager for SCIM Mars Discovery Mission at Jet Propulsion Laboratory. He previously served over twelve years in project and program manager positions at the Jet Propulsion Laboratory: the SAC-D/Aquarius Mission, the Earth Science Information Technology, ST-6 Autonomous Sciencecraft Mission, Flight Software Development and Technology Group, Mars Polar Lander Project, and Deep Space One Project.

**Areas of Expertise:** Space systems project management, negotiation, financial management, and spacecraft autonomous systems.



**James M. (Mike) Snead** has wide-ranging systems and structural engineering experience from a variety of significant projects including the X-30 National Aerospace Plane, Delta Clipper Experimental (DC-X), and USAF Transatmospheric Vehicle (TAV). Mr. Snead holds a M.S. in Aerospace Engineering from the U.S. Air Force Institute of Technology and a B.S. in Aerospace Engineering from the University of Cincinnati. He is a registered professional engineer in the State of Ohio and a graduate of the Department of Defense's Advanced Program Management program (in residence). Mr. Snead has chaired the AIAA Space Logistics Technical Committee and is an Associate Fellow of the AIAA.

Mr. Snead was the Project Engineer for the Air Force TAV Project Office where he led the technology readiness assessment for a fully-reusable, manned, space access system. Following establishment of the National Aerospace Plane Program (X-30), Mr. Snead was the Chief Flight Systems Engineer (Phase I) and Lead Structures Engineer (Phase II) in the X-30 Joint Program Office Systems Engineering Division. Later, he was a name-requested Government Technical Consultant for the DC-X Program – supporting this program through the fourth flight test – and served on the X-33 source selection. Mr. Snead developed systems engineering concepts for an integrated spacefaring logistics infrastructure focusing on fully-reusable to-space and in-space transportation capable of achieving the equivalent of airworthiness certification for safety. His primary efforts were developing fully-reusable, rocket-powered, two-stage-to-orbit system concepts using current technologies as well as concepts using advanced airbreathing propulsion.

Prior to his focus on space systems, Mr. Snead worked in the Air Force Aeronautical Systems Center's Engineering Directorate doing both original engineering and contractor structural engineering oversight on a diverse range of aircraft including the F-4, F-111, C-141, and Saudi AWACS. Mr. Snead served on the Executive Independent Review Team assessing first flight readiness for the YF-22 and YF-23 Advanced Tactical Fighters and on the F-22 independent cost team. While working in the Air Force Research Laboratory, Mr. Snead served as Lead for Agile Combat Support where, in addition to focusing on future space logistics, he co-developed the Configurable Air Transport (CAT) tanker and air mobility concept. He also initiated and led a wide-ranging futures wargaming effort, reporting to the Air Force Chief Scientist, focusing on advanced military weapons system conceptualization.

In demonstration of his multifaceted leadership ability, he established and leads the Spacefaring Institute LLC with a special focus on space solar power and the integrated spacefaring logistics capabilities needed to make space solar power a primary sustainable energy supply capability. In this effort, Mr. Snead has published a white paper and a YouTube video on space solar power.

**Areas of Expertise:** Systems engineering, structural engineering, advanced technology hardware and systems conceptualization, flight readiness, engineering oversight, project/program management.



**Robert Swanson** specializes in business organizational leadership of established and start-up firms. Dr. Swanson holds a M.S. in Metallurgical & Materials Engineering from University of Pittsburgh, a M.S. in Engineering Management also from University of Pittsburgh, a Ph.D. in Metallurgical Engineering & Materials Science from Carnegie Mellon University, and he participated in the Stanford Executive Program of Business at Stanford University. He has served as V.P. of Global Systems at Concurrent Technologies Corporation, V.P. at DRS Technologies, Inc., V.P. of Engineering & Programs at Argon ST, Chief Operating Officer at Ktech Corporation, and V.P. of Santa Fe Operations at TMC. In 2002, he co-founded Symbiotechnica LLC to provide “Solutions Beyond Technology” for U.S. and international clients. He also has worked as President at MaxxLife Enterprises LLC, V.P. & Chief Technology Officer at W2E3 LLC, and Chief Technology Officer at Energetics Technology Center.

**Areas of Expertise:** Business management and leadership, materials engineering.



**Garrett Thurston** has successfully lead, built, and managed development in aerospace, defense and security divisions from the ground up to increase revenue, improve profitability, and satisfy clients. Over his career, he has received training in National Security Intelligence from the National Institute of Science, Space, & Security Centers (NISSSC), earned a Ph.D. in Engineering & Engineering Management from University of Massachusetts at Lowell, a M.S. in Engineering from University of Lowell, and a B.S. in Chemistry from Providence College. He has worked as Government Program Manager at Textron, Services Manager/Consulting Services Engineer at Wind River Systems, Turbine Engine Simulation Manager at Hamilton Sundstrand, Avionics Business Manager at ENSCO, Inc., and Division Director of Aerospace, Defense, & Security at Foliage. During his career, Dr. Thurston has lead development of a global turbine engine FADEC product line and infrastructure, counter-suicide bomber detection system hardening, three different platforms of unmanned aircraft systems (UAS), manned-aircraft cockpit avionics and display systems, weapons system for rapid ordinance delivery, and three different key Boeing 787 systems. Over his 25 years of progressive experience in systems and materials development, he has spent 9 years in government development program management, 13 years in product development services leadership, and developed 4 patents.

**Areas of Expertise:** Project/program management, systems engineering, materials and product development, strategy mapping & balanced score cards, product strategies and frameworks, strategic outsourcing, export and certification regulatory affairs, organizational transformation, organization alignment, organizational readiness, and safety critical software management.



**Sam Ximenes** is an aerospace professional and space architect who contributes experience in technology management and business development. He is a senior level technical manager, knowledgeable in a broad range of technology areas for government, commercial, and international programs of aerospace and defense. His education includes a B.S. in Environmental Design from Texas A&M University and M.S. of Space Architecture from University of Houston. He has over 20 years of experience in the aerospace industry providing products and services to NASA, DoD, and international programs. He was a Senior Design Associate at Bell and Trotti Architects, working on space architecture design concepts for lunar bases and space station habitability studies for NASA/JSC. He worked for Grumman Aerospace Corporation developing space station cabin architectures and led the programmatic design integration efforts of the Japanese and European laboratory modules for NASA's space station with requirements for interface management. He has held executive management positions at Lockheed Martin, L-3 Communications, and Futron Corporation where he was responsible for growth and development of business strategies for their respective business units in advanced programs and technology insertion for space systems.

**Areas of Expertise:** Program management, technical engineering management, spacecraft and space-facility architectural design, business management, and business development.



**Brent Ziarnick PhD** is a Captain, United States Air Force Reserve, and holds private and military space experience from his broad work in space-related policy, strategy, and development, and has active government security clearances. His educational background includes a Ph.D. in Economic Development from New Mexico State University, a M.S. in Space Systems Engineering & Engineering Management from University of Colorado at Colorado Springs, and B.S. in Space Operations from the United States Air Force Academy. In the Air Force, Mr. Ziarnick is a space command and control specialist for the Korean Theater of Operations. During his past experiences in the service, he provided worldwide, survivable, command and control of Global Positioning System (GPS); Space Test and Training Range (STTR); deployed Space Control forces; and multiple Air Operations Centers' Combat Operations Division as crew commander and technical expert. In the commercial sector, he supported two launches for Spaceport America, one of which he was chief coordinator. He furthermore developed New Mexico Spaceport Authority launch planning/execution checklists, industrial development strategy, and vertical launch area long-range plans. In addition to civilian and military space operations work, he is a strategy and economics expert. He has contributed numerous articles in military and civilian journals on space issues, including award-winning essays. He is certified in the Prometheus strategy process developed by Col. John A. Warden (USAF, ret.), the architect of the 1991 Gulf War air campaign plan. He has also taught as an adjunct professor of economics at New Mexico State University in Las Cruces where he studied economic development, specializing in the economic impact of Spaceport America to the region. Mr. Ziarnick is a graduate of the U.S. Marine Corps Command and Staff College, Space 100 and 200, and is qualified to hold the U.S. Air Force senior space badge.

**Areas of Expertise:** Space operations, space policy and economic strategy, spaceflight coordinator, and process documentation.



**Melissa Ziarnick PhD** Melissa Ziarnick is a Systems III Engineer at Honeywell Aerospace. She is an experienced Aerospace Physiologist and Human Factors analyst. She recently graduated from New Mexico State University with a Ph.D. in Engineering Psychology. Ms. Ziarnick also holds a B.S. in Biology from the U.S. Air Force Academy, and a M.S. in Aeronautical Science, Human Factors and Aviation Safety from Embry-Riddle Aeronautical University. Her research includes areas of alert salience and noticing as well as unmanned aerial vehicle training. Prior to entering New Mexico State, Mrs. Ziarnick was an Aerospace Physiologist in the U.S. Air Force for five years. Her expertise lies in the areas of human factors, aviation safety, situational awareness, crew resource

management, acceleration, high altitude physiology, and other human performance topics. She received her board certification in Aerospace Physiology in 2009. Mrs. Ziarnick is a member at large of the Aerospace Human Factors Association and a member of the Aerospace Physiology Society, both affiliate organizations of the Aerospace Medical Association. She is also a member of the Human Factors and Ergonomics Society. Mrs. Ziarnick has completed training in aircraft accident investigation, night vision goggle instruction, fatigue management, and basic survival, and she conducted centrifuge training for U.S. Air Force pilots. Mrs. Ziarnick also holds a private pilot certificate and is certified in SCUBA diving.

**Areas of Expertise:** Human factors, aerospace physiology, human situational performance, and project management.