

**Todd J. Mosher, Ph.D.**  
**Todd.Mosher@colorado.edu**  
**[www.linkedin.com/in/toddmosher-phd/](https://www.linkedin.com/in/toddmosher-phd/)**

## EDUCATION

<b><u>Presidential Leadership Scholar</u></b> ,	2024
<b>University of Colorado</b> , Ph.D., Aerospace Engineering	2000
<b>University of Colorado</b> , M.S., Aerospace Engineering	1995
<b>International Space University</b> , Diploma, Summer Session Program, Stockholm, Sweden	1995
<b>University of Alabama in Huntsville</b> , M.S., Systems Engineering	1992
<b>San Diego State University</b> , B.S., Aerospace Engineering	1989

## TEACHING EXPERIENCE

**University of Colorado**, Boulder, CO  
Scholar in Residence and Associate Chair of Graduate Studies, Engineering Management      2025-Present

- Teaching Global Topics in Aerospace, Engineering Economics, and Engineering Communication.
- Lead the graduate studies program, including traditional and Coursera master's degrees and online certificates.

**Arizona State University**, Phoenix, AZ  
Faculty Associate, Thunderbird School of Global Management      2024-Present

- Taught Strategic Management of Technology and Innovation for the [Executive Master of Global Management: Space Leadership, Business, and Policy](#) degree.
- Provided the Commercial Space Global Challenge Lab challenge for the 2024-25 class.

**Sigma Chi Fraternity**, Evanston, IL  
Alumni Guide, [Horizons Huntsman Leadership Summit](#)      2009-Present

- Provide values-based leadership training in an immersive outdoor experience in Snowbird, UT.
- Provide post-session mentoring to undergraduate students until graduation and often beyond.

**International Space University**, Strasbourg, France  
Faculty, Engineering and Space Systems Analysis and Design Departments      1997-2023

- Chaired the Summer Session Program Engineering department, teaching and organizing workshops for students from over 30 countries in 2023 (São José dos Campos, BRA) and 2022 (Lisbon, PRT).
- Chaired Summer Session Program Space Systems Analysis and Design department, teaching lectures and conducting workshops for students from over 30 countries in 2004 (Adelaide, AUS) and 2005 (Vancouver, CAN).
- Invited lecturer to Summer Session Programs in 1997 (Houston, USA), 2001 (Bremen, DEU), 2002 (Pomona, USA), and 2009 (NASA Ames Research Center, USA).

**Utah State University**, Logan, UT  
Assistant Professor. Mechanical and Aerospace Engineering Department      2002-2005

- Managed program and directed engineering of the Naval Research Lab Hyperspectral Imager for Coastal Oceans instrument designed for flight on the International Space Station through Critical Design Review.
- Directed the Center for Advanced Satellite Manufacturing, a State Center of Excellence, and established the Space Systems Analysis Lab for Air Force, NRO, NASA, and Lockheed Martin-sponsored research.
- Advised the team that won NASA's 2005 Moon Buggy Race, defeating 28 other colleges.
- Mentored a team that won the NASA Revolutionary Aerospace System Concepts Academic Linkage (RASCAL) graduate competition.
- Taught multiple undergraduate and graduate engineering classes, receiving excellent teaching reviews.

**University of California, Los Angeles, Los Angeles, CA**

Instructor, Mechanical and Aerospace Engineering Department

1998-2002

- Taught Introduction to Space Technology, Spacecraft Design, and Space Hardware Design courses in the Mechanical and Aerospace Engineering department.
- Advised teams that won first place (2002), third place (2002), and third place (2001) in AIAA Undergraduate Space Competitions.
- Instructed Spacecraft Systems Analysis course at UCLA Extension for working professionals and was recognized for exceptional student evaluations.

**Aerospace Institute at the Aerospace Corporation, El Segundo, CA, and Chantilly, VA**

Instructor, Space Systems Overview

1997-2002

- Taught award-winning classes for government customers and employees.

**PROFESSIONAL EXPERIENCE****Blue Origin, Kent, WA**

Director, Nautilus Formulation Team

2021-Present

- Leading a 35+ multidisciplinary engineering and business team, formulating future space systems using an innovative, agile methodology to incubate new programs to fulfill long-term company vision. Example studies include Mars Sample Return and Lunar Surface Logistics.
- Directed Mission Systems Engineering and Integration Division of 60+ engineers with the full range of systems engineering and integration skills. Responsible for people management and career development.
- Organized the Customer Experience team for [Orbital Reef](#), a commercial space station competing to replace the International Space Station. Collaborated with 13 engineers, scientists, architects, industrial designers, and human-centered designers to imagine the future astronaut and payload space experience.

**Amazon, Seattle, WA**

Senior Manager, Satellite Systems Technical Program Management, Project Kuiper

2019-2021

- Led Technical Program Management team for [Project Kuiper](#), a global, high-speed broadband constellation of 3,236 LEO satellites. Amazon committed \$10B to its long-range success. Authored Press Release/Frequently Asked Questions (PR/FAQ) document serving as a catalyst for [two prototype Kuiper satellites](#) launched on October 6, 2023, on an Atlas V.
- Co-created interdisciplinary systems engineering job family for implementation across the Amazon enterprise, including Amazon Robotics, Project Kuiper, Prime Air, and Lab126.
- Organized solution ideation mechanism for restoring Amazon's global fulfillment network capacity at the onset of the pandemic while addressing COVID-19-driven constraints. Then designed a process for transitioning approved ideas to pilot and implementation across the network before the 2020 peak. Over 75 process redesigns were completed, with over 20,000 process stations enhanced.

**Terran Orbital, Irvine, CA**

Chief Revenue Officer

2018-2019

- Managed nine small satellite programs for Earth, Moon, and Mars, serving NASA, the Department of Defense (DoD), and national security customers from inception to on-orbit operations. These include the co-formulation of [CAPSTONE](#), the first CubeSat to reach the Moon, and leading on-orbit anomaly resolution, enabling the extended [RainCube](#) mission, the first demonstration of radar on a CubeSat.
- Named Chief Revenue Officer after 10 months as Vice President of Civil Space and Domain Awareness, after tripling the pipeline and significant revenue growth via new wins as well as existing program turnaround. Responsibilities include program administration, budget development, stakeholder management, and fiscal management, including profit and loss (P&L).
- Transformed business development, program management, technical performance, supply chain, and profit of space program delivery, including doubling win probability and improving program execution.

**Synchroness, Westminster, CO**

Vice President, Engineering

2015-2018

- Provided executive leadership of a 130-employee multidisciplinary team of program managers and systems, mechanical, electrical, and software engineers in high-velocity commercial product development (20-30 simultaneous projects) for customer portfolios, including medical, aerospace, and consumer markets. Awarded Denver Chamber of Commerce Small Business of the Year in 2016.
- Leveraged network to drive new customer growth, leading to Synchroness portfolio diversification and fueling the best financial performance in 20-year history, 50% growth in staff, and acquisition by Alten.
- Executed strategy with largest customer, United Launch Alliance (ULA), growing support 5X, mainly for the Vulcan launch vehicle. Recognized with the 2015 ULA Small Business Excellence Award.

**Sierra Nevada Corporation (SNC), Louisville, CO**

Senior Director, Strategic Opportunities, Space Exploration Systems

2013-2015

Director, Design and Development, Dream Chaser Program

2011-2013

Program Manager, Dream Chaser Program

2010-2011

Director, Spacecraft Business Development

2008-2010

- Directed proposals for the next phase of the NASA Commercial Crew Program and the NASA Commercial Resupply Services contracts with total values of over \$5B, the largest efforts SNC has ever proposed. This follows leading three previously awarded NASA proposals valued at over \$350M.
- Formed strategic partnerships with Lockheed Martin, Boeing, United Launch Alliance, United Technologies, Draper Laboratory, Aerojet Rocketdyne, and The Walt Disney Corporation.
- Guided the integrated product teams with a hardware-driven design methodology for Dream Chaser mechanical and electrical subsystems. These include thermal protection systems, thermal control, environmental control and life support, attitude determination and control, electrical power, structures, mechanisms, propulsion, avionics, and software. Steered a staff of over 100 SNC engineers and contractors while keeping design and development milestones on schedule and within budget on fixed-price contracts through multiple NASA awards, going beyond the Preliminary Design Review.
- Assembled and program-managed a team of 85 employees and subcontractors in completing four major milestones and 50 tasks on time and under budget for the fast track, fixed price, 12-month, Dream Chaser \$20 Million NASA Commercial Crew Development Program Phase 1 effort.
- Spearheaded industry/academia eSpace incubated, Next Giant Leap Google Lunar X-Prize team developing technical architecture, partnerships, and business cases until acquired by Moon Express.
- Wrote proposal and served as program manager for Air Force Research Lab Operationally Responsive Space Multi-Mission Space Vehicle, starting with 15 competitors before SNC selected the sole winner.

**Microsat Systems Incorporated (MSI), Littleton, CO**

Director, Spacecraft Business Development

2006-2008

- Helped win over \$100M commercial Orbcomm Second Generation program with an order to build 18 satellites (in orbit today) with an option for 30 more, resulting in SNC's acquisition of MSI.
- Promoted the success of TacSat-2, resulting in the AIAA Space Systems Award, Aviation Week Small Company Breakthrough Technology Award, and Air Force Research Laboratory Director's Cup.

**Lockheed Martin Space Systems, Denver, CO**

Senior Manager, Advanced Exploration Systems

2005-2006

- Served as Principal Investigator for a \$2.5M internal research technology project in Autonomous Rendezvous and Docking, supporting civil and DoD programs throughout the company. This resulted in the Space Operations Simulation Center construction and recognition in the NASA Orion contract award.
- Performed space exploration advanced studies, developing lunar human and robotic landers as well as communications/navigation orbiters that set the foundation for the NASA Altair human lander contract.

<b>The Aerospace Corporation, El Segundo, CA</b>	
Associate Director, Space Architecture Department	2000-2002
Manager, Space Architecture Section	1998-2000
Senior Member of the Technical Staff	1997-1998
Member of the Technical Staff	1996-1997
<ul style="list-style-type: none"> <li>• Spearheaded the development of the Polar Night lunar Discovery mission. Responsible for both the mission architecture and the organization of the government, industry, and academia teams.</li> <li>• Served on 15 NASA mission selection panels reviewing 500+ technical and cost proposals for solar system missions from Mercury to Pluto. Awarded the 1997 NASA Team Excellence Award.</li> <li>• Co-directed 40 engineers providing space architecture support to DoD and NASA customers, including development of Team X at JPL and review of Mars Sample Return concepts. Awarded the Aerospace Corporation Team Achievement Award for Development of JPL's Team X in 1997.</li> </ul>	

### **General Dynamics Space Systems**

Systems Engineer, San Diego, CA, and Huntsville, AL	1989-1993
• Created a discrete event simulation of the Space Shuttle ground processing, identifying flight rate limits and the need to dedicate the Space Shuttle to Space Station assembly and servicing.	
• Contributed to Atlas V, using a Russian engine design, one of the most reliable U.S. launch vehicles.	

## **SERVICE**

Chair of the Guiding Coalition for the AIAA ASCEND Conference	2024-Present
2024 Cohort Alumni Representative for the Presidential Leadership Scholars Program	2024- Present
Explorers Club Fellow	2024- Present
Trustee, American Institute of Aeronautics and Astronautics	2021- Present
Spaceflight Committee Member, Museum of Flight	2021- Present
Organizing Committee Lead for the AIAA/Smithsonian Outer Space Heritage Summit	2024
Chair, Washington Joint Center for Aerospace Technology Innovation Board of Directors	2022-2024
Mentor, Techstars Starburst Aerospace Accelerator Program	2020
Advisor, University of Colorado Alumni Association Board of Advisors	2013-2018
Member, National Academies Panel Reviewing Decadal Survey on NASA Life and Physical Sciences	2018
Embry-Riddle Engineering Physics Industrial Advisory Board	2016-2018
Trustee, Rocky Mountain Chapter of Leukemia and Lymphoma Society Board of Trustees	2017
Chair, National Academies Review of NASA Technology Portfolio	2016
Graduate, Denver Metro Chamber of Commerce Leadership Denver Program	2016
USU Mechanical and Aerospace Engineering Department Advisory Board	2008-2014
EDL Roadmap Lead, National Research Council Panel Reviewing NASA Technology Portfolio	2012
Member, National Research Council Panel Reviewing NASA Laboratory Capabilities	2010
Member, National Research Council Panel Reviewing NASA's Exploration Technology Program	2008
Chair, Vice Chair, and Secretary AIAA Space Systems Technical Committee	2002-2007
Member, National Research Council Panel Reviewing NASA Space Communications Program	2006
Member, National Research Council Panel Reviewing NASA Revolutionary Technology Program	2003
Georgia Institute of Technology Aerospace Engineering External Advisory Board	1998-2001
Member, AIAA Multidisciplinary Design Optimization Technical Committee Member	1997-1999
National Science Foundation Engineering Education Scholar	1996
Lead Graduate Teacher, University of Colorado Aerospace Engineering Department	1993-1995

## AWARDS

Outstanding University of Colorado Alumni for Excellence in Commercial Enterprise	2024
University of Colorado Kalpana Chawla Outstanding Recent Alumni Award	2012
SNC Explorer's Cup Management Team Award	2012
SNC Excel Award for Director of the Year	2011
AIAA Associate Fellow	2004
NASA Graduate Student Researcher Fellowship	1994-1997
UAH Systems Engineering Department Outstanding Graduate Student	1993

## PUBLICATIONS

### Refereed Reports

Committee for the Review of NASA's Decadal Survey on Life and Physical Sciences Research, 2018. A Midterm Assessment of Implementation of the Decadal Survey on Life and Physical Sciences Research at NASA. National Academies Press, Washington, DC.

Committee for the Review of NASA's Technology Roadmaps, 2016. NASA Space Technology Roadmaps and Priorities Revisited. National Academies Press, Washington, DC.

Committee for the Review of NASA's Technology Roadmaps, 2012. NASA Space Technology Roadmaps and Priorities. National Academies Press, Washington, DC.

Committee for Assessment of NASA Laboratory Capabilities, 2010. Capabilities for the Future: An Assessment of NASA Laboratories for Basic Research. National Academies Press, Washington, DC.

Committee for the Review of NASA's Exploration Technology Development Program, 2008. A Constrained Space Exploration Technology Program: A Review of NASA's Exploration Technology Development Program. National Academies Press, Washington, DC.

Committee for the Review of NASA's Space Communications Program, 2006. Review of the Space Communications Program of NASA's Space Operations Mission Directorate. National Academies Press, Washington, DC.

Committee for the Review of NASA's Pioneering Revolutionary Technology Program, 2003. Review of NASA's Aerospace Technology Enterprise. National Academies Press, Washington, DC.

### Refereed Journals

Muri-Harmony, T. and Mosher, T. 2026, Multiple Aspects of Preserving Lunar Space Heritage. *Acta Astronautica*, Volume 240, March 2026, Pages 147-154.

Zea, L., Warren, L., Ruttley, T., Mosher T. et al. 2024, Orbital Reef and commercial low Earth orbit destinations—upcoming space research opportunities. *npj Microgravity* 10, 43.

Thompson, R. J., Mahageg, M., Kellogg, J., Mosher T. et al. 2022, A Quantum Science Space Station, *Quantum Science and Technology*, 8(1).

Mitchell, M., and Mosher, T. 2007. An Orbit Analysis for Performing Remote Sensing from the International Space Station, *Advances in Astronautical Sciences*, Volume 120, pp. 1361-1379.

Mitchell, M., and Mosher, T. 2007. An Orbit Analysis for Performing Remote Sensing from the International Space Station, *Journal of Astronautical Sciences*, Volume 55, Number 1.

Mosher, T., Mitchell, M. and Packard, K. 2006. The EVA Evaluation Exoskeleton (E<sup>3</sup>): A Proposed Tool for Studying Human-System Interaction in the Space Environment. *Habitation, International Journal of Human Support Research*, Volume 11, Numbers 1/2, pp. 63-68.

Mosher, T., and Lucey, P. 2006. Polar Night: A Lunar Volatiles Expedition. *Acta Astronautica* (October-December) Volume 59, Issues 8-11, pp. 585-592.

Russell, J., Klaus, D. and Mosher, T. 2006. Applying an Analysis of Crew Time Utilization on the International Space Station to Future Space Mission Design, *AIAA Journal of Spacecraft and Rockets* (January-February) Volume 43, Issue 1, pp. 130-136.

Woffinden, D., Geller, D., Mosher, T. and Kwong, J. 2005. On-Orbit Satellite Rendezvous Inspection: A Concept Study and Design, *Advances in Astronautical Sciences*, Volume 120, pg. 849.

## Refereed Journals (Continued)

Quincieu, J., Robinson, C., Stucker, B., and Mosher, T. 2005. Case Study: Selective Laser Sintering of the USUSat II Small Satellite Structure, Assembly Automation Journal (December), Volume 25, Issue 4, pp. 267-272.

Mosher, T., Moffit, B. Dittman, and Korn. A. 2003. Evaluating trajectories for a feasible Earth-orbit aerocapture/aerogravity assist demonstration. Advances in Astronautical Sciences, Volume 116, pp. 2189-2201.

Mosher, T., Lao N., Davalos, E., and Bearden, D. 1999. A Comparison of NEAR Actual Spacecraft Costs with Three Parametric Models. Acta Astronautica Journal Volume 46. pp. 457-464.

Mosher, T. 1999. Conceptual Spacecraft Design Using A Genetic Algorithm Trade Selection Process. AIAA Journal of Aircraft. (January-February) Volume 36, Issue 1, pp. 200-208.

## Conference Papers

Mosher T. and Muir-Harmony, T. 2024, Multiple Aspects of Preserving Lunar Space Heritage. 75<sup>th</sup> International Astronautical Congress (October 14-18) Milan, Italy.

Mosher T. and Kelsey, L. 2023, Orbital Reef: Redefining Commercial Space Station Operations. 17<sup>th</sup> International Conference on Space Operations (March 6-10) Dubai, United Arab Emirates.

Mosher, T., Aponte Williams, V., and Lillard, R. 2022, Orbital Reef: A Low Earth Orbit Destination for Commercial Exploration. AIAA ASCEND 2022 Conference (October 24-26) Las Vegas, NV.

Tanelli, S., Joshi S., and Mosher T. 2020, RainCube one year after completing its mission: what we learned and what lies ahead. 100<sup>th</sup> American Meteorological Society Annual Meeting (January 13) Boston, MA.

Mosher, T., and Friedl, L. 2019. Vision 2020 Then and Now: An International View of the Future. International Astronautical Congress (October 21-25) Washington, DC.

Mosher, T., Kolozs, J. Colegrove C., and Wilder, E. 2018. Agile Hardware Development Approaches Applied to Space Hardware. AIAA Space 2018 Conference. (September 17-19) Orlando, Florida.

Murrow, D., Mosher, T., Olson, J. Rapp, C. and Langley, G. 2014. Mutual Benefits from NASA's Exploration and Commercial Crew Programs. International Astronautical Congress (September 29-October 3) Toronto, Canada.

Krevor, Z., Howard, R. Mosher, T., Curry, J. Sanchez, M. and Voss, J. 2013. The Advantages of a Hardware-Based Design Methodology. AIAA Space 2013 Conference (September 10-13) San Diego, CA.

Krevor, Z., Howard, R., Mosher, T., Sanchez, M., Curry, J. 2011. Achieving Full Ascent Abort Coverage with the Dream Chaser Space System. AIAA Space 2011 Conference (September 27-29) Long Beach, CA.

Woffinden, D., Epstein, L., Stafford, G., Mosher, T., Curry, J. Krevor, Z. 2011. Dream Chaser On-Orbit Operations: Preliminary Trajectory Design and Analysis. AIAA Guidance, Navigation and Control Conference. (August 8-11) Portland, OR.

Howard, R., Krevor, Z., Mosher T., Scott, K., Voss, J., Sanchez, M. and Curry, J. 2011. Dream Chaser Commercial Crewed Spacecraft Overview. AIAA International Space Planes and Hypersonic Systems and Technologies Conference (April 11-14) San Francisco, CA.

Cohanim, B., Cunio, P., Hoffman, J., Joyce, M., Mosher, T. and Tuohy, S. 2009. Taking the Next Giant Leap, AAS Guidance and Control Conference (February 5-10) Breckenridge, CO.

Cohanim, B., Harrison, N., Mosher, T., Heron, J., Davis, K., Hoffman, J., Cunio, P., de Luis, J. and Joyce, M. 2009. Small Lunar Exploration and Delivery System Concept. AIAA Space 2009 Conference (September 14-17), Pasadena, CA.

Lucey, P.G., Gillis-Davis, J.T., Hawke, B.R., Taylor, L.A., Duke, M.B., Brady, T., and Mosher, T., 2009, LEAG Review of Constellation Program Regions of Interest for Human Exploration of the Moon, Lunar Reconnaissance Orbiter Science Targeting Meeting, held 9-11 June 2009 in Tempe, Arizona: Houston, Texas, Lunar and Planetary Institute Contribution 1483, p. 73-74.

Curtis, H. and Mosher T. 2009. Leveraging the First ORS Mission into ORBCOMM and the Implications for Future ORS Missions. AIAA Responsive Space Conference. (April 27-30), Los Angeles, CA.

## Conference Papers (Continued)

Cox, S., Mosher, T., and Hamera, K. 2008 Responsive Imaging Constellations for Support of Geographically Dispersed Theatres. AIAA/AAS Astrodynamics Specialist Conference (August 18-21), Honolulu, HI.

Hamera, K., Mosher, T et al., 2008. An Evolvable Lunar Communication and Navigation Constellation Architecture. AIAA 26<sup>th</sup> International Communications Satellite Systems Conference (June 10-12) San Diego, CA.

Rao, A, Schrich, A., Cox, S. and Mosher, T. 2008. A Concept for Operationally Responsive Space Mission Planning Using Aero-assisted Orbital Transfer. Sixth AIAA Responsive Space Conference. (April 28-May 1). Los Angeles, CA.

Hamera, K., Mosher, T et al., 2008. An Evolvable Lunar Communication and Navigation Constellation Concept. IEEE Aerospace Conference (March 1-8) Big Sky, Montana.

Birckenstaedt, B., Hopkins, J., Kutter, B., Zegler, F., and Mosher, T. 2006. Lunar Lander Configurations Incorporating Accessibility, Mobility, and Centaur Cryogenic Propulsion Experience. AIAA Space 2006 Conference. (September 18-21) San Jose, CA.

Kennedy, S., Mosher, T. and Young, Q. 2006. The Rise and Fall of the Capitol Asset- An Investigation into the Aerospace Industry Dynamics and Emerging Small Satellite Missions. Twentieth Annual AIAA/USU Conference on Small Satellites. (August 14-17) Logan, UT.

Bodrero, B., Gregory, J., Jones, A., Salmon, J., Siggard, E., Stromsdorfer, J. and Mosher, T. 2005 SelenAres AIAA Space 2005. (August 30-September 1) Long Beach, California.

Kwong, J. and Mosher, T., 2005. Development of an Integrated Concurrent Design Tool for the Design of Human Spaceflight Missions. IEEE Aerospace Conference (March 6-11) Big Sky, Montana.

Mosher, T. et al. 2005. Progress Towards Launch: A Review of 2004 HICO Program Activities. IEEE Aerospace Conference (March 6-11) Big Sky, Montana.

Mitchell, M. and Mosher, T. 2005. An Orbit Analysis for Performing Remote Sensing from the International Space Station, AAS/AIAA Astrodynamics Specialist Conference. (January 24-27) Copper Mountain, CO.

Woffinden, D., Geller, D., Mosher, T. and Kwong, J. 2005. On-Orbit Satellite Rendezvous Inspection: A Concept Study and Design, AAS/AIAA Astrodynamics Specialist Conference. (January 24-27) Copper Mountain, CO.

Vaughn, A., Hendrickson, D. and Mosher, T. 2004 Capability Based Minuteman III Upgrade Force Mix Selected at Minimum Cost Using Multidisciplinary Design Optimization (Full Text is Classified), AIAA Missile Sciences Conference. (November 16-18) Monterey, CA.

Mosher, T., Mitchell M., Lucey, P. and Hochberg, E. 2004. Hyperspectral Imaging of Coastal Regions from the ISS. SPIE Remote Sensing of the Atmosphere, Ocean, Environment, and Space (November 8-11) Honolulu, HI.

Mosher, T. and Stucker, B. 2004. Responsive Space Requires Responsive Manufacturing-Part II. AIAA Space 2004 Conference. (September 27-30) San Diego, CA.

Mosher, T. and Kwong, J. 2004. Returning to the Moon at a Modest Cost. AIAA Space 2004 Conference. (September 27-30) San Diego, CA.

Young, Q., Mosher, T. et al. 2004. The IRIS Project: Student-Designed Imaging Satellite for the RASCAL Launch Vehicle. Eighteenth Annual AIAA/USU Conference on Small Satellites. (August 9-12) Logan, UT.

Tompkins, M., Warner, M. and Mosher T. 2004 Advanced Wireless Communications Technologies for Low Power, Reconfigurable Small Satellite Radios. Eighteenth Annual AIAA/USU Conference on Small Satellites. (August 9-12) Logan, UT.

Corson, M.R., Bowles, J.H., Chen, W., Davis, C.O., Gallelli, K.H., Korwan, D.R., Lucey, P., Mosher, T. and Holasek, R. (2004). The HICO program - hyperspectral imaging of the coastal ocean from the international space station. International Geoscience and Remote Sensing Symposium, IGARSS '04 Processing, Anchorage, USA (pp.4184-4186)

Mosher, T. and Stucker, B. 2004. Responsive Space Requires Responsive Manufacturing. Second AIAA Responsive Space Conference. (April 19-21). Los Angeles, CA.

## Conference Papers (Continued)

Mosher, T. et al. 2004. Hyperspectral Imager for the Coastal Oceans (HICO). IEEE Aerospace Conference (March 7-12) Big Sky, Montana.

Mosher, T. and Kwong, J. 2004. The Space Systems Analysis Laboratory: USU's New Concurrent Engineering Facility. IEEE Aerospace Conference (March 7-12) Big Sky, Montana.

Packard, K. and Mosher, T. 2004 Ergonomic Testing with an Alternative Spacesuit Mockup. NASA Habitation Conference. (January 5-8) Orlando, FL.

Smith, R. and Mosher, T. 2003. The 1971 Space Shuttle Design Trades: When OMB's Space Plane Lost. AIAA International Space Planes and Hypersonic Systems and Technologies. (December 15-17) Norfolk, VA.

Mosher, T., Lucey, P., and Davis, C. 2003. Hyperspectral Imager for the Coastal Ocean (HICO). Thirtieth International Symposium on Remote Sensing of Environment. (November 10-14) Honolulu, HI.

Mosher, T. and Vaughn A. 2003. A Platform Approach to Small Satellite Design. Fifty-fourth International Astronautical Congress. (September 29 - October 3) Bremen, Germany.

Mosher, T., and Lucey, P. 2003. Polar Night: A Lunar Volatiles Mission. Fifth IAA International Conference on Low-Cost Planetary Missions. (September 24-26) Noordwijk, The Netherlands.

Vaughn, A., and Mosher, T. 2003. Benchmarking the Small Satellite Industry – Identifying Emerging Trends to Increase Access to Space. Seventeenth Annual AIAA/USU Conference on Small Satellites. (August 11-14) Logan, UT.

Mosher, T., Moffitt, B., Dittman, E., and Korn, A. 2003. Evaluating Trajectories for a Feasible Earth Orbit Aerocapture/Aerogravity Assist Demonstration. AAS/AIAA Astrodynamics Specialist Conference. (August 3-7) Big Sky, MT.

Mosher, T., et. al. 2003. Analysis and Design of a Tether Boost Facility for Martian Satellite Transfer. Thirty-Ninth Annual AIAA/ASME/SAE/ASEE Joint Propulsion Conference. (July 20-23) Huntsville, AL.

Moffitt, B., and Mosher, T. 2003. An Innovative Trajectory for the Demonstration of Aerocapture/Aerogravity Assist. New Trends in Astrodynamics and Applications - An International Conference. (January 20-22) College Park, MD.

Mahr, E., and Mosher, T. 2002. Mission Architectures for the Exploration of the Lunar Poles. IEEE Aerospace Conference (March 9-16) Big Sky, Montana.

Mosher, T., and Musani, R. 2001. Integrating a Geographically Distributed Team Using Commercial Technology. Eleventh Annual International Symposium of the International Council on Systems Engineering. (July 2-5) Melbourne, Australia.

Mosher, T., Bitten, R., Lao, N., Mahr, E., and Musani, R. 1999. Evaluating Small Satellites: Is the Risk Worth It? Thirteenth Annual AIAA/USU Conference on Small Satellites. (August 23-26) Logan, UT.

Mosher, T., Barrera, M., and Lao, N. 1998. Integration of Small Satellite Cost and Design Models for Improved Conceptual Design-to-Cost. Eight Annual International Symposium of the International Council on Systems Engineering. (July 26-30) Vancouver, Canada.

Lao, N., Mosher, T. and Neff, J. 1998. The Aerospace Corporation Small Satellite Cost Model – An Update. ISPA/SCEA Joint International Conference. (June 16-19) Toronto, Canada.

Mosher, T. 1998. Spacecraft Design Using a Genetic Algorithm Optimization Approach. IEEE Aerospace Conference (March 21-28) Aspen, CO.

Bearden, D., Barrera, M., Lao, N., Duclos, D., and Mosher, T. 1997. A Methodology for Conceptual Remote Sensing Spacecraft Technology-Insertion Analysis Balancing Performance, Cost and Risk. 48th International Astronautical Congress. (October 6-10) Turin, Italy.

Mosher, T. 1997. Systematic Course Design at The Aerospace Institute. ASEE Annual Conference. (June 15-18) Milwaukee, WI.

Mosher, T. 1996. Applicability of Selected Multidisciplinary Design Optimization Methods to Conceptual Spacecraft Design. 6th AIAA/NASA/ISSMO Symposium on Multidisciplinary Analysis and Optimization. (September 4-6) Seattle, WA.

Mosher T. 1993. A STATUS Check of the Space Shuttle Program. 5th AIAA/SOLE Space Logistics Symposium. (May 24-26) Huntsville, AL.

## **Conference Papers (Continued)**

Mosher, T. 1993. The Closing Window of Opportunity: Addressing the US Space Launch Vehicle Crisis. Future Leaders in Science and Engineering Symposium. TABES Conference. (May 4-5) Huntsville, AL.

Mosher, T. 1992. Launch System Standardization. AIAA Space Programs and Technologies Conference. (March 24-27) Huntsville, AL.

Mosher, T. 1992. Project Lone Wolf: An Antarctica Space Simulation Facility for the Space Exploration Initiative. AIAA Space Programs and Technologies Conference. (March 24-27) Huntsville, AL.

Mosher T. 1991. The Next Stuff: Crew Size and Composition for Missions to Mars. The First International Design for Extreme Environments Assembly. (November 12-15) Houston, TX.

Mosher T. and Labbee M. 1991. Operability Impacts on Space Transportation Infrastructures. Plenary Paper. 4th AIAA/SOLE Space Logistics Symposium. (November 4-6) Cocoa Beach, FL.