

Sarah M. Brennan, Ph.D.

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OBJECTIVE:

To shape a career that is characterized by technological innovation, cooperative achievement, and demonstrated versatility. To excel as both student and teacher, capitalizing on opportunities to expand my own understanding and resources to influence others and deal effectively with both abstract ideas and strategies, as well as with the details of task execution.

EDUCATION:

STANFORD UNIVERSITY, Stanford, CA

Ph.D. Aeronautics and Astronautics, April 2003

Dissertation: Modeling the Mechanical Characteristics and On-snow Performance of Snowboards

M.S. Aeronautics and Astronautics, January 1999

UNIVERSITY OF COLORADO, Boulder, CO

B.S. Aerospace Engineering, June 1997

EXPERIENCE:

8/09-Present **Manager Engineering, Northrop Grumman Aerospace Systems (NGAS)** **Redondo Beach, CA**
Deputy Offsite Manager – Lead integration, test, and launch activities for 3 AEHF military communication satellite payloads in coordination with Space Vehicle testing at Lockheed Martin Space Systems Company in Sunnyvale, CA. Coordinate daily schedules, serve as the primary Customer interface for Test Operations, and represent NGAS at Test Readiness Reviews and Break of Configuration meetings. Lead anomaly investigation/resolution efforts to closure. Manage a diverse offsite team of 60 engineers and technicians, and perform functional responsibilities of yearly performance appraisals, personnel growth and staffing reductions. Support the offsite manager with Cost Account Management responsibilities.

5/05-8/09 **Senior Staff Engineer, Northrop Grumman Aerospace Systems (NGAS)** **Redondo Beach, CA**
Deputy Space Vehicle Manager – Led Space Vehicle design integration activity for Mechanical Design Integration, Thermal Design Integration, Mass Properties, Dynamics, and Cable & Harness Engineering. Led environmental test coordination across all Space Vehicle Elements to insure specification compliance. Supported problem resolution and technical execution across all subcontractor and internal development activities, and presented technical status to Customer team. Defined and coordinated Space Vehicle staffing and surge support needs. Represented the Space Vehicle Manager in launch vehicle coordination activities. Cost Account Manager for Dynamics and Design Integration with demonstrated cost and schedule performance. Interfaced with Program Office to identify/execute threat and risk mitigation opportunities. Supported Program level ROM and proposal efforts. Served as technical POC for Program Protection and Security issues across the Program. Served as Program focal point for IT coordination.

Subcontract Technical Manager – Responsible for programmatic and technical execution of propulsion, mechanical, and electro-mechanical subsystem development. Ensured requirements compliance, drive design development, and flight hardware acceptance testing to closure. Responsible for planning and execution of anomaly resolution efforts and disposition of MRB / FRB items. Defined and managed NGAS support to subcontractor to fill gaps in staffing and critical skills.

Space Vehicle Dynamics Lead – Defined environments and loads, and coordinated system level model development and integration for stowed and deployed analysis. Provided technical and programmatic oversight and direction in execution of component and subsystem level dynamic testing. Responsible system engineer for vehicle level testing and selloff. Focal point for Customer coordination and communication, POC for subcontractor interaction, and Program POC for Launch Vehicle CLA development.

2/04-2/07 **Staff Engineer, Northrop Grumman Space Technology (NGST)** **Redondo Beach, CA**
Principle Investigator, Precision Pointing & Vibration Control / Deployables & Articulation IR&D - Led a small team of engineers in research and development efforts to extend the state-of-the-art in structural dynamics, precision pointing and vibration control including the development of hardware designs and advanced analytical approaches, and improved testing methodologies.

1/99-3/03 **Ph.D. Candidate, Stanford Graduate Fellow, Stanford University** **Stanford, CA**
Developed a software-based design tool that models mechanical properties and evaluates snowboard performance by calculating the time required to complete a prescribed course given material, rider, and course characteristics.

HONORS: Otto Hamberg Award for best paper 23rd Aerospace Testing Seminar (2007); Herbert Kunzel Stanford Graduate Fellow (1999); Hatton-Lovejoy Graduate Scholarship recipient (1997).