C. Scott Hill **(575) 527-4898 (home)**
(575) 635-6834 (cell)

Experience Summary:

I have many years of direct experience in hypergolic reaction control rocket Development, Qualification, Production, Failure Investigation, Field repair and Application. Was primary contributor for Apollo Service Module Rocket, Manned Orbiting Laboratory RCS, Shuttle Primary and Vernier Thrusters for RCS.

Present: Instructor Mechanical Engineering University of Texas at El Paso Teach courses in Spacecraft Design and Spacecraft Propulsion Jan 2010 to present

Position Causal Employee - ARES Corporation, Huntsville, Alabama

Time in Position April 2006 - December 2009

Provide mentoring and review of specifications, processes and approaches to Reaction Control Integrated Project Team for the Area I vehicle on the NASA Constellation Program at MSFC. Reported directly to NASA IPT Manager. IPT is developing system for monopropellant thrusters for active roll control and attitude control of the 2nd stage. Made monthly trips and direct support using the Internet. Participate in design reviews.

Retired from full time employment - November 1, 2005

Position: Staff Advisor to Program Manager – White Sands Test Facility
Time in Position: 3 Years
Description and Scope of Current Job:
Developed and taught instruction courses for WSTF test personnel in rocket development, Shuttle thruster development and qualification testing, application of rockets to space vehicle. Assisted in failure investigation and provided technical project management consulting.

Position: Propulsion Department Manager – White Sands Test Facility
Time in Position: 7 Years
Number of Personnel DirectlySupervised: 6 direct reports with 115-125 people in Department
Description and Scope of Job:

Responsible for managing Propulsion Department including overall technical performance, budget control and reporting at the department level; the primary direct customer interface with the Propulsion Office Chief to ensure customer satisfaction and department level strategic planning. Contributing member of the WSTF Honeywell/NASA management team in creating and executing policies. Assist in planning and review of performance relative to the Program Manager's goals and objectives. Propulsion Department has achieved high award fee scores and made significant cost saving contributions during the last 7 years.

Was Program Manager for the Boeing subcontract with AlliedSignal from 1994 to 1999 responsible for customer satisfaction and contractual conformance. Was primary interface for personnel issues, contractual reporting, and Boeing representative for the 70 Boeing technical professionals on the contract. Became a Honeywell employee in April 1999 when Boeing was no longer a team member for the WSTF support contract competition.

Work Experience

May 1992 – April 1994

Position: Technical Lead - Subsystems and Propulsion Specialist- Space Station Freedom Integration Team

Description and Scope of Job:
Subsystems and Propulsion Technical Lead on a five-person product team to provide direct support to NASA, Level II, in overall integration of SSF. Responsible for review of the design and development status of subsystems, e.g. active and passive thermal systems, mechanical and life support, and the propulsion modules on SSF. Supported Boeing at JSC in initial integration of Russian hardware and systems into the International Space Station.

May 1989 - May 1992

Position: Subsystems Design Group Supervisor - Propulsion Specialist - Advanced Engineering Department, Rockwell International SSD, Downey, California

Description and Scope of Job:
Supervised 10 engineers in analysis and preliminary conceptual design and evaluation of advanced vehicle configurations funded through company IR&D and NASA LeRC study contract. Provided propulsion expertise in support of proposals for single stage-to-orbit vehicle and small satellites which could be launched on Pegasus

October 1987 - May 1989

Position: Development Manager, Rocketry Department, The Marquardt Company, 16555 Saticoy Street, Van Nuys, California.

Description and Scope of Job:
Supervised four Project Engineers and 16 development engineers who were generating test data and performing data analysis of acceptance tests and development tests of hypergolic fueled rockets. These thrusters generated from five to 1,200 pounds of thrust and were used for attitude control and velocity change on Space Shuttle, military, and commercial satellites. Duties included firing test scheduling, budget and cost estimating and control, preparation of test plans, cost proposals, generation and approval of test reports. Task required extensive interaction with test facility instrumentation and operational support groups to resolve data accuracy and test conduct procedures.

1985 - October 1987

Position: Senior Project Engineer, Rocketry Department, The Marquardt Company, 16555 Saticoy Street, Van Nuys, California.

Description and Scope of Job:
Responsible for technical, budget and schedule aspects of the program. Task included preparation of reports, briefings to Rockwell and NASA, development and qualification test plans, failure investigation of flight hardware and incorporation of design changes to Shuttle RCS thrusters. This program involved efforts of 30 to 50 engineers in a functional matrix organization across all engineering disciplines. Program expenditure exceeded $1,000,000 per month.

Directly responsible for development, qualification and retrofit installation of the instability protection system into the Shuttle fleet. Defined concept, directed design implementation, conducted design reviews, defined content of the test program, conduct of the demonstration and qualification tests, proposal preparation, cost definition and fact finding with customer.

1981 - 1985

Position: Project Engineer, Space Shuttle RCS Program, Rocketry Department, The Marquardt Company, 16555 Saticoy Street, Van Nuys, California.

Assisted the Senior Project Engineer and Program Manager in successful development and qualification of the Shuttle RCS Thrusters. Responsible for engineering design, processing of changes, acceptance testing, failure investigation, and technical interface with Rockwell and NASA.

Prepared and supported monthly reviews with customer and NASA, component suppliers and subcontractors, wrote and approved analysis reports.

1974 - 1981

Position: Vernier Thruster Project Manager, Rocketry Department, The Marquardt Company, 16555 Saticoy Street, Van Nuys, California.

Working in parallel with Primary Thruster Project Engineer, Don Sund, and the Shuttle Program Manager, Al Belsley, I was responsible for design, development testing, verification and qualification testing of 22 pound thrust Vernier thruster. Directed and coordinated design, customer briefings, change evaluation and approval, and prepared customer proposals. Prepared subcontracts requirements and monitored progress of component suppliers. Directed failure investigations and incorporated design changes to define thruster life capability in support of Shuttle flight program.

Development test engineer for development and qualification testing of RCS thrusters including propellant valves, injector, and chambers. Defined specification requirements, evaluated component design and performance for heaters, chamber pressure transducer, and temperature sensors.

1970- 1974- Ran computer services company with partner

1961-1970 - Apollo Service Module Rocket development, qualification and production at Marquardt

Education*:*

Master of Science Mechanical Engineering, 1966
University of Southern California, Los Angeles, California

Bachelor of Science Mechanical Engineering, 1961
University of Washington, Seattle, Washington

Special Skills:

- Proficient in use of computers, mainframe and personal computer applications including spreadsheets, database, word processing, and programming languages.
- Excellent presentation and written communication skills with a good understanding of financial reporting and business operational parameters. Experienced in writing winning proposals for NASA programs.
- Teaching & communication skills - Part time Computer Science Instructor for 10 years at Pierce College, Woodland Hills, California and at UTEP as well as developing training courses for professionals in propulsion testing.

Professional Credentials:

- Professional Mechanical Engineering License, (CA 14200), State of California
- Building Contractors License,(CA 432407), State of California
- Los Angeles Community College District Permanent Teaching Certificate 1983