

**CAROL L. MARTINEZ**  
2386 Grandview Drive  
Camarillo CA 93010  
(805) 482-1067  
clmartinez100@verizon.net

**SUMMARY** Program/Project Management, New Product Development, Engineering Management

**EXPERIENCE** Utilizes scientific methodologies, a diverse experience base, business sense, and a positive “can do” attitude to effectively develop and transition technically challenging products and processes from R&D to manufacturing.

Mar 2005 to present, MC Martinez, Inc. - President, Independent consulting, new product/business development, program/project management, thin film process development

- Mentored/guided the development of a Business Plan for third party vertical integration and expansion plan

- In team environment, generated and submitted SBIR Phase I & II and Air Force BAA proposals. Currently executing two SBIR Phase II programs.

- With Table Mountain Optics, developing precision Mid-wave IR filters using DC Magnetron Sputtering and Optical Monitoring

- With Ion Beam Optics, developing radiation resistant solar-cell cover-glass coatings to improve performance, durability and end-of-life

July 2003 to present, HASER Solar Systems, Inc. - Vice President, Business Operations  
Responsible for business plan development of start-up solar energy product company. Successfully demonstrated prototype phase, and currently transitioning products for consumer and commercial applications.

Oct 1996 to Mar 2005, Rockwell Scientific (Rockwell Science Center) Thousand Oaks, CA  
Program Manager, Thin Film Optics Department

- Managed multi-disciplined cross-functional engineering teams to meet program goals and objectives primarily for thin film device development into low rate then high rate production. Responsibilities included: pricing, technical execution, tracking, scheduling, and completion of program tasks, and communications with upper management and customers with monthly, quarterly, and final reports, business plans and technical interchange meetings.

- Developed optical thin film business plan, strategy development and implementation plan into niche thin film business areas, such as rugate filters, beam splitters and combiners, ophthalmic filters, and other specialty coatings with potential growth from \$2M per year to \$15M per year.

- Program Manager, Laser Eye Protection (LEP). Responsible for numerous LEP products, development, and delivery for diverse military applications:

Army LEP: Responsible for process development, scale-up, and production of 50,000 near infrared optical thin film LEP devices per year, including facility expansion, and ISO 9001 certification, utilizing Continuous Process Improvement strategies. Current program value \$6M, potential for \$15M per year.

Air Force LEP: Integrated visible filters with near infra-red filters for custom high protection LEP device. Devices are scheduled for field use in 2004/2005. Improved lamination and lens cutting process throughput, cost, and durability by over 2 fold. Supported several R&D technology push LEP projects using novel filter designs and techniques. Current program values of \$12M with potential of \$20M per year.

Navy LEP: Provided near-infrared LEP filters for integration into fielded LEP spectacles. Current program value \$300K, potential visor LEP - \$5M per year.

- Process Engineer, developed low temperature thin film coating processes (magnetron sputtering and electron beam evaporation) for ophthalmic applications, which included the development of control system hardware and software, Design of Experiment analysis

utilization, digital and analog rugate filter design and fabrication techniques. Used Design of Experiments to solve show-stopping adhesion problem on polycarbonate substrates.

- Process Engineer, responsible for developing and transitioning to production organic thin film compensator films, which improve the performance of liquid crystal displays: Class 1000 clean-room and document/process control implementation.

April 1987 to October 1996, Rockwell Aerospace/Rocketdyne Division, Canoga Park, CA,  
Member of the Technical Staff, Advanced Instrumentation, Engineering & Test.

Designed and developed health monitoring systems to improve products and processes: designed and developed advanced sensors, instrumentation, and data acquisition systems (hardware and software) to facilitate quality engineering validation, anomaly resolution, and diagnostics. Experience with electro-optical and optical sensors, infrared thermography, spectroscopy, fiber optics, and signal analysis.

- Designed, tested, and evaluated infrared optical sensor array ignition detection system for Delta and Atlas Launch Vehicles which improves reliability and cost effectiveness.
- Infrared imaging and thermal analysis of Delta, Atlas, SSME, THAAD, and ASAT engines.
- Designed, developed and implemented a real-time turbomachinery bearing vibration condition monitoring system and algorithms, which successfully indicates incipient bearing component wear and failure.
- Coordinated the design, integration, implementation, fabrication, and qualification testing of fiber optic displacement sensors to monitor bearing conditions in the Space Shuttle Main Engine High Pressure Oxidizer Turbopump and other extreme environment systems.
- Supervised safety, operations, and maintenance of Instrumentation Laboratory, lab experiments, and lab users.

## **SKILLS**

- Utilizes numerous techniques and tools for effective business and program management
- Proposed and won multi-million dollar aerospace and government programs.
- Composed business plans, test plans, schedules, work instructions, final reports, statements of work, manpower estimates, cost models, capital equipment forecasts, and patent disclosures.
- Published and presented numerous technical papers and briefs (title list available).
- Extensive experience with Design of Experiment, Taguchi, and Continuous Process Improvement methodologies.
- Fluent in Office software packages, Microsoft Project, etc. and several programming languages
- Department of Defense secret security clearance.
- Proficient in thin film design software: Layers, & Megaline for rugate filters, etc.

## **EDUCATION**

- Masters, Business Administration, California Lutheran University
- B. S. Physics, California State University, Northridge

### Other professional courses:

Design of Experiment and Taguchi Methods, 44 hours

Program Management 24 hours

Project Management, 16 hours

Proposal Writing, 16 hours

Microsoft Project Training 24 hours

Class 100 Clean-room Training

Emergency Response Team Training

## **AWARDS**

Department of Defense Title III Office Outstanding Contribution Award, 2005; Rockwell Scientific's Team of the Year 2003, Rockwell Chairman's Team Award, 1997; McDonnell Douglas Aerospace Silver Eagle Award, 1992; 2 NASA Technology Utilization Awards; 3 Rocketdyne Technology Utilization Awards; 5 Rockwell Special Achievement Awards, qualified for MBA Honors Society.