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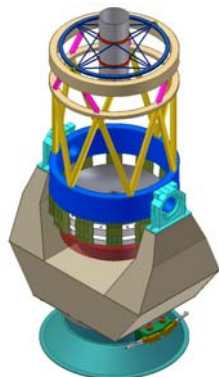
Statement of Objectives: To initiate and lead challenging multi-disciplinary programs in advanced technology, developing scientific infrastructure. To implement a culture of effective program management across a range of sub-programs within a project environment and lead integrated product team managers to meet objectives of cost, schedule, and quality in administration of their programs. To assist in achievement of development goals as a key member of the executive management team.

Professional Achievements:

October 2004 to Present Project Manager, Atacama Telescope
Cornell University, Ithaca, NY

Responsible for **development** of 25 meter far-infrared submm telescope including development of partnership and funding, staffing, development of project infrastructure, budgets, designs, and interface to contractors, and identification and performance of all activities required to design and construct the Atacama Telescope.

March 2003 to October 2004 Project Manager, Discovery Channel Telescope
Lowell Observatory, Flagstaff, Arizona



Responsible for **development** of 4.3 meter, 2 degree field of view telescope including development of partnership and funding, staffing, development of project infrastructure, budgets, designs, and interface to contractors, Discovery Channel **management**, and identification and performance of all activities required to design and construct the Discovery Channel Telescope. Currently in the **Concept Design** Phase, contracts have been awarded for the primary and secondary mirror blanks and for concept design of the facility, optical system, and telescope mount. Total budget is **\$40 million** and awards to date are over \$4 million. Managed design and refurbishment of building for DCT Project Team, hire initial 4 team members. See: <http://www.lowell.edu>



May 1997 to March 2003 Project Manager, SOAR Telescope Project
National Optical Astronomy Observatories, Tucson, AZ



Manage all aspects of **design and construction** of a unique 4-meter optical telescope. Responsible for all Project activities & budgets. Project was developed at a total cost of **\$30 million**. The SOAR Telescope will provide the best image quality and tracking performance of any 4 meter telescope. The telescope is sited in Chile, and will be completed in 2003. Team of 14 and contracts up to **\$8.1 million totaling \$19 million**. Partners include U.S. universities as well as the US National Astronomical Observatories and Brazil. See: <http://www.soartelescope.org/>



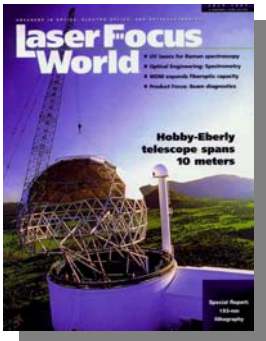
Consulting Activities: Currently active as **paid consultant to other large telescope projects** including: South African Large Telescope (SALT) (an effort to construct a Southern Hemisphere HET), Gran Telescopio de Canarias (GTC) (a Spanish effort along the lines of the KECK telescope), the Cornell Atacama 15 meter Telescope (CAT), and other smaller telescopes. Leadership role in initiation of HET, SOAR, GTC, and SALT providing interim cost estimates

and technical presentations for development of partnerships and full funding. Participant in **concept development for Extremely Large Telescopes** including GSMT, CELT, and ELT.

August 1992 to May 1997

Project Manager, Hobby Eberly Telescope Project

McDonald Observatory, University of Texas at Austin



Manage all activities including design, analysis, construction, operation, contracting. Form Project Team of 17 direct employees, establish budgets and schedules, led complete **design of telescope** to meet performance & cost requirements. **Develop partnership** & maintain optimal interface with 5 international university partners, UT Administration, State of Texas commissions and committees. **Develop procurement strategies**, documentation, let contracts, manage foreign contractors and US, and resolve technical and contractual problems.



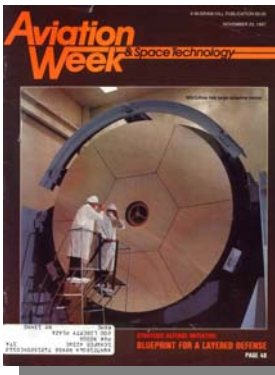
Oversee construction, integration, debug, and testing. First Light (initial operations) of telescope achieved **on schedule and without any net cost increase**. Obtained over \$1 million worth of contributions to the Project. Directed UT activities to **bid for \$750 million NASA program** as prime contractor, with major aerospace corporate partners. Worked successfully with international partners and corporations.

<http://www.as.utexas.edu/mcdonald/het/het.html>

March 1986 to July 1992

Deputy Operations Manager

W.J. Schafer Associates, Rome, New York



Provide technical support to various federal government agencies in optical technology and systems development.



Managed development programs in large active segmented optics including: HALO, LAMP, LODE, LOS, PACE, and others totaling more than \$50 million in contracts. Developed technology for optical fabrication, wavefront sensing, absolute phase sensing, absolute distance measurement and image analysis. Developed in-house electro-optical products, including imaging sensors and interferometric inspection and metrology systems. Second in command & responsible for hiring & **management of 25 professional staff**. Performed business development, proposal writing, and customer/corporate interfaces required to support Rome Operation of WJSA. Authored proposals yielding over **\$18 million in contract awards over seven years**. Interfaced with more than **70 different high technology companies**.

Formed **aerospace corporate teams** to pursue USAF and other procurements. Managed over \$25 million in technical consulting contracts. <http://www.schafercorp.com/>

LAMP Mirror: 1985-1990 Sebring was Principal Consultant to USAF Program

November 1985 to March 1986

Section Manager, Laser Development

Hampshire Instruments, Rochester, New York

Manager of 6 person group responsible for development of compact **high energy Nd:YLF MOPA laser** for integrated circuit x-ray microlithography step-and-repeat machine. Responsible for concept designs, schedules, budgets, component development, integration, vendor and contractor interface, and group management activities. **Produced complete design for laser system**, including overall structure, alignment systems, spatial filters, turning prisms, anamorphic beam expanders, and slab amplifier assembly.

June 1981 to October 1985

Optical Engineer, Government Systems Division

Eastman Kodak, Rochester, New York

Project Engineer on many large lightweight **optical fabrication** projects, including Hubble Space Telescope backup mirror. Developed optical fabrication technology and optimized production processes. Managed **budgets totaling \$5 million**, responsible for supervision of optical fabrication personnel and design teams. Principal Engineer/Project Manager for design & development of large \$2 million **computer controlled optical surface generator**, designed,



constructed, tested, and successfully placed in production. Optical system engineer for **laser communication satellite**, including specification and procurement of all optics, assembly and integration plans, error budgets, optical analysis, and radiation hardness. Interfaced with multiple prime contractors and **government customers**.

Pre-Professional Experience: Operated successful construction company, worked as ski area lift foreman, steel fabricator, photographer, mechanic/shop foreman, magazine editor, rigger, and nurseryman. Skills and expertise developed in these professions have been valuable in management of programs throughout my professional career.

Education:

B.S. High Honors 1981 Photographic Science and Instrumentation
Rochester Institute of Technology, Rochester, New York
Winner: Fuji Scholarship for Academic Excellence, 1980
Optics Short Course 1984 University of Arizona (2 week seminar on optical engineering)



Expertise:

Management Skills:

Program Management, Product Development, New Technology Development & Assessment, Business Development, Partnerships & Teaming, Strategic & Tactical Planning, Cost Management, Statistical Analysis & Product Assurance, Staffing & Human Resources Management, Team Building and Motivation, Total Quality Management. Excellent written and verbal communication & presentation skills, use of advanced media including digital and conventional imaging, electronic publishing, and multi-media presentations. Substantial network of colleagues throughout the optical, aerospace, construction, and technical steel fabrication industries as well as the astronomical community.

Specific Technologies: Optical Systems Engineering & Development, Opto/Mechanical Engineering, Optical Fabrication, Micro-positioning, Micro-metrology, Image Processing and Analysis, Computer Machine Control, Process Optimization, Statistical Quality Control, Total Quality Management, Construction Management.

Security Clearance: Many different government security clearances at different times, including Top Secret & SCI

Personal Data: Date of Birth: June 26, 1948 Health: Excellent Marital Status: Married 28 years, wife's name: Susan. Other Activities: Competitive athlete in canoe and bicycle racing, well published author & photographer for outdoors magazines, avid wilderness traveler, climber, skier, scuba diver, and amateur musician. Resident of La Serena, Chile for ~1.5 years, Spanish language classes, and fluency consistent with project administration in Chile.

Statement from the Candidate:

My principal strengths are imagination, engineering innovation, team building, communication, and fiscal control. My projects finish on time and within established budgets due to the quality of our teams and the processes we establish. It is the people of an organization which enable all modes of success. My teams deal with adversity though a combination of imagination, *finding novel and effective solutions*, and consistency, *doing what we say we will*. At this stage in my career, I'm interested in new technical and organizational challenges and opportunities to lead larger teams into development of new business, engineering, and/or scientific capabilities.

West Texas Time Machine; a book chronicling the development of the Hobby Eberly Telescope, initiated and developed by T. Sebring, used for fundraising and public outreach

