



Richard C. Juergens 1980-81 OSSC President's Profile

Mr. Juergens was born in Chicago in 1946 and moved to California when he was 9 years old. He went to Savanna High School in Anaheim, where he excelled both scholastically and in sports (Cross Country and Track), competing all the time with his identical twin brother. He graduated from Savanna in 1964 and went to California State College, Fullerton, earning his B.A. in Physics in 1967. While taking extra classes to graduate in three years at CS Fullerton, he also lettered in Cross Country, leading the team to their first ever inter-scholastic win in that sport, and also worked part time at Rockwell's Autonetics plant in Anaheim.

After graduating from Cal-State Fullerton, he went to work full time at Autonetics, eventually moving into an electro-optics group, where he got involved in the optical field that was to be his career. He also started full time at UC Irvine, graduating with an M.A. in Physics in 1969.

While working at Autonetics and still going to graduate school, he married

Mary Saunders, whom he had started dating in high school. They bought a house in Irvine, before it was a city of its own, where they lived for the next 29 years with only a brief hiatus in Oregon. Eventually, they ended up with five children and currently are up to six grandchildren.

In 1970, with the downturn of the aerospace industry, he was laid off from Autonetics, and got a job at Philco Ford in Newport Beach. Philco Ford soon became Ford Aerospace, and later, after Mr. Juergens left, was sold to Loral, and then to Lockheed Martin.

At Ford Aerospace, Mr. Juergens initially worked on the optical systems for the various versions of the Sidewinder missile (AIM-9B, -9C, -9D, -9E, and -9H). Little did he know then that 25 years later he would be back working on missiles again, including the AIM-9X. At Ford, he worked with many outstanding optical and electro-optical people, including John Gardner, who was a former President of the OSSC, and Lee Wadsworth, who introduced him to the OSSC in the mid 70s (at the old Rodger Young Auditorium) starting him towards eventually becoming President of the OSSC in 1980-81.

After five years of working on missiles, he transferred to a group under Peter Laakmann where he became the system engineer as well as optical engineer for a series of serial scan FLIRs. He helped design and build many FLIRs, including those for the Alyeska company for monitoring the trans-Alaska pipeline, for McDonnell Douglas for the Harpoon missile, for Kongsburg Vappenfabrik of Norway for the Penguin attack boat, and several FLIRs for various classified programs. Eventually, he became supervisor of optics and system requirements for advanced FLIR programs.

In 1982, Mr. Juergens left Ford Aerospace, and went to Portland, Oregon to work for FLIR Systems, Inc. There he helped design and develop a dual FOV FLIR for commercial and paramilitary applications. He started at FLIR as a senior IR systems engineer, but later was promoted to Vice President of Engineering. FSI then had a series of stockholder takeovers, and got a new President from TI, who brought his own management team with him. Thus, in 1984, Mr. Juergens left FSI and returned to California (and to his house, which he hadn't sold) to work as a Senior Scientist at Hughes Aircraft Company in El Segundo.

At Hughes, he worked on systems design for advanced FLIRs and what were then called second generation FLIRs, which were the first with advanced focal plane arrays. After three and an half years at Hughes, he got a call from Darryl Gustafson at Optical Research Associates, asking him to join ORA in their marketing department to help with technical support and marketing of the CODEV optical design program, of which he was an expert user.

Mr. Juergens spent the next almost eleven years at ORA, literally travelling around the world marketing and supporting CODEV. In this job, he learned even more about various optical technologies, as he had to teach users how to use CODE V to solve ever more demanding optical problems. He has

Contents	
Richard C. Juergens 1980-81 President's Profile	1
OSSC Board of Directors	2
Mark Optics Company Profile	2
OSSC Golf Tournament Notice	3
Wednesday, April 5 OSSC Meeting Overview of Extreme Ultraviolet	
Lithography-Russ Hudyma	3
Corporate Members	4

Optical Society of Southern California Board of Directors

President

Mark Bandhauer
Bausch & Lomb Surgical
9342 Jeronimo Road
Irvine, CA 92618
(949) 454-4503
mark_bandhauer@bausch.com

Vice President

Gary Noyes

Secretary

Don Wolpert
TRW
One Space Park, MS R1/1138
Redondo Beach, CA 90278
(310) 813-5297
Hd.Wolpert@trw.com

Treasurer

Brian Seaman
28332 Rancho Grande
Laguna Niguel, CA 92656
(949) 831-4816
blseaman41@aol.com

Past President

Peter Nance, Jr.

Councilors

Graham Brewis
Daphne Chakran
David Cook

Program Chair

Eric Fest

Arrangements Chair

Neil Nelson

Scholarship Chair

Kish Sadvani

Membership, Fellowship Chair and Webmaster

Reddy Chirra

Historian

Tom Godfrey

Images Newsletter Editor

Gaylord Moss

Images Newsletter

Deadline for contributions is the date of the monthly meeting preceeding the next issue. Send information to:

Gaylord Moss
Images Newsletter Editor
PO Box 9130
Marina del Rey, CA 90295
e-mail gmoos@mediaone.net
Tel/FAX (310) 827-3983

OSSC is the Southern California Section of the Optical Society of America and is a non-profit organization.

also gotten to know many optical personalities all over America, Europe, and Japan, many of whom are now close personal friends.

In January of 1999, Mr. Juergens left ORA to rejoin Hughes Aircraft, which by now had been sold to Raytheon. He left California, and went to Raytheon Missile Systems in Tucson, Arizona, where he is now a Senior Principal Engineer in the Opto-Mechanical Department. He lives in Tucson with his wife Mary, and his youngest daughter Sheila.

While working for Raytheon in Tucson, Mr. Juergens has also started his own optical consulting company, Cimarron Optical Consulting, which is now a corporate member of the OSSC. If you have any need for optical design consulting, or even for help in using CODEV or LightTools, please contact Cimarron at cimarron@azstarnet.com.

Mr. Juergens has been an OSSC member for almost 25 years, serving in most of the board positions. His busiest OSSC meeting was when he had to serve as the outgoing Arrangements Chair, the incoming Treasurer, and was the speaker, all at the same meeting! He is also a member of the OSA and of SPIE. Rick can be contacted at:

Phone: (520) 577-7023

Fax: (520) 577-7023

e-mail: cimarron@azstarnet.com
or

rcjuergens@west.raytheon.com

Company Profile



Mark Optics has been a family owned company since its inception in 1967. Our founders, E. Roy Dickson and Ross LaRue met while working together at William I. Mann Company in Monrovia. In 1952, Mr. Dickson started his own company called Scientific Optical and two years later Mr. LaRue joined him. By 1965 both

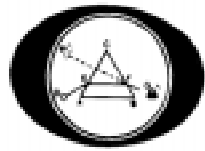
gentlemen thought it was time to retire and sold Scientific Optical. It seemed retirement bored both of our founders (thank goodness for all of us working now) resulting in the creation of Mark Optics, Inc.

The first years focused primarily on manufacturing precision optical components for the military and aerospace industries. By 1973 Mark Optics diversified and subsequently became a leading supplier in solid quartz products for the semi-conductor industry. Under the direction of our founders, Mark Optics continued to develop its optical division while its quartz group flourished.

In 1994, the optics division incorporated under the old name of Mark Optics and the quartz division became Pacific Quartz. As granddaughter of Mr. Dickson, my goals have been to maintain the precedents established by my grandfather, including pride of workmanship and unsurpassed expertise. Mark Optics endeavors to be the highest quality quartz and optical component supplier. We fabricate custom precision products that create substantial value to our customers. For over 30 years we have offered full in house production capabilities from boule slicing and coring through CNC machining, diamond turning, and planetary lapping. Our flexible selection of employees and machinery allow us to specialize in development and prototype work as well as production runs. Most importantly, we hope the experience our customers have with us is enjoyable as well as profitable. I want to take this time to thank you all for the decades of business and support.

With Warmest Regards,

Julie A. Houser
President
Mark Optics, Inc
1424 E. St. Gertrude Pl.
Santa Ana, CA 92705
<http://www.markoptics.com>
Phone 714-545-6684
Fax 714-545-3105



OPTICAL SOCIETY
OF SOUTHERN CALIFORNIA

Wednesday, April 5 at 7:00 PM

Overview of Extreme Ultraviolet Lithography

Russ Hudyma

Lawrence Livermore National Laboratory

Lithography continues to be the key enabler and driver for the semiconductor industry. The growth of the industry has been the direct result of improved lithographic resolution and overlay across increasingly larger field sizes. But as IC design rules shrink to 100 nm (0.1 mm) the availability of affordable process latitude becomes questionable. At this point, the arguments for advanced lithographies become compelling. Extreme Ultraviolet Lithography (EUVL) represents probably the most promising technology for supporting the integrated circuit (IC) industry's lithography needs during the first decade of the 21st Century. This technology builds on conventional optical lithography experience and infrastructure, uses 10 to 14 nm photon illumination, and is expected to support multiple technology generations from 70 nm to 30 nm.

The EUVL tool development is sponsored by a consortium of semiconductor manufacturers, the EUV Limited

Liability Company (LLC), formed in 1997 to sponsor both technology development and commercialization. The EUV LLC consortium is composed of Advanced Micro Devices, Intel, and Motorola. This talk will describe continuing technology research and the development of masks, metrology, photoresists, and an "alpha" tool designated as the Engineering Test Stand (ETS). The ETS will demonstrate full field imaging and provide EUVL learning for concurrent development of beta tools by the semiconductor equipment manufacturers (SEMs).

Speaker Biography

Russ Hudyma is employed at Lawrence Livermore National Laboratory supporting the Extreme Ultraviolet Lithography (EUVL) effort concentrating on optical design, analysis, and lithographic simulation of EUVL printing systems.

Date: Wednesday, April 5, 2000

**Place: The Wyndham Garden Hotel
700 West Huntington Drive
Monrovia, CA**

(See Map Below)

Time: 7 PM Dinner, 8:30 PM Speaker

Cost: Dinner \$20. Speaker only, no charge

Reservations: preferably by e-mail, to our Arrangements Chair, Neil Nelson at neil.nelson@trw.com or by calling (310) 812-2349 by Friday, March 31st.

Choose your entree: New Orleans Style Chicken or Sirloin Beef Brochettes.

OSSC Golf Tournament

Place: Paradise Knolls

When: Saturday, June 3, 2000

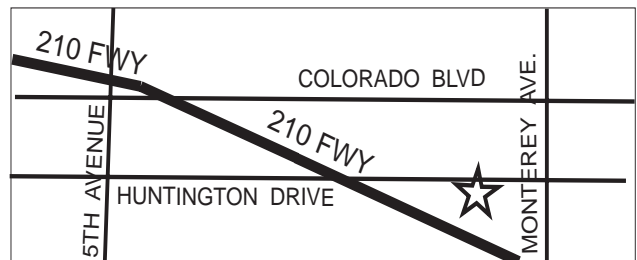
Time: 1st start time is 8:00 AM

Cost: \$47 per person, includes cart and greens fees.

Deadline for entries: May 17

Contacts: Fred Hansen at 714-522-6559 or Bill Butek at 909-989-1728.

Note: The course requires that we send our money two weeks in advance. We are scheduled for 60 players. The course may be able to handle one extra foursome, but probably no more. Get your entries in early as the list fills up fast.



OSSC Corporate Members

Alson E. Hatheway
Bausch & Lomb Surgical
CK Optical Co., Inc.
Cimarron Optical Consulting
Control Optics Corp.
Curt Decker Associates, Inc.
Cylinder Optics
Davidson Optronics
Eddy Company
Eidetic Optical Systems
Engineering Calculations
General Optics, Inc.
Hardin Optical Company
Harold Johnson Optical Labs
Integrated Endoscopy
J.L. Wood Optical Systems
Kaiser Electro-Optical Systems
Lightworks Optical, LLC
LINOS Photonics GMBH
Mark Optics, Inc.
Melles Griot, Inc.
Metron Optics, Inc.
Mindrum Precision Products
Nearfield Systems, Inc.

Newport Industrial Glass, Inc.
Newport Thin Film Laboratory
Ohara Corporation
Optical Components, Inc.
Optical Instrumentation Corp.
Optical Research Associates
Optimum Optical Systems
Optosigma Corp.
Orbital Sciences Corp.
Pellicori Optical Consulting
Precision Applied Products
Precision Glass & Optics
Precision Optical
Prisms Unlimited, Inc.
Pyramid Optical Corp.
Raytheon Systems Company
Reynard Corp.
Rolyn Optics Company
Salem Distributing
Schott Glass Technologies
UCI Technology Outreach Program
Universal Photonics, Inc.
ZC & R Coatings for Optics, Inc.

These companies provide funding to the Optical Society of Southern California enabling the Society to operate. We are grateful for their support.



OPTICAL SOCIETY
OF SOUTHERN CALIFORNIA

C/O Reddy Chirra
13200 Dewey Street
Los Angeles, CA 90066-1718
Address Correction Requested