

Lifetime Achievement Award

13 June 2018

2018 OSSC LIFETIME ACHIEVEMENT AWARD

Alson E. Hatheway

It is with great pleasure that the Optical Society of Southern California recognizes one of its most esteemed Fellows, ALSON E. "Al" HATHEWAY, with this lifetime achievement award in gratitude for his decades of service to the Society.

According to our by-laws, *The Board of Directors may* from time-to-time recognize individuals who have performed outstanding service to the Society and to the optical industry of Southern California by electing them to the honorary title of Fellow. In 1989 Mr. Hatheway was awarded recognition for his chairmanship of the Fellows Committee and that certificate hangs proudly in his office. He has continued to chair this committee to this day under every successive President.

This Lifetime Achievement Award goes beyond election to Fellowship. This is only the third time it has been awarded.

Mr. Hatheway acceded to the office of President of OSSC in 1986 amid a flurry of interest in moving the meeting around, not necessarily to abandon the Cockatoo Inn

(remember?) but to attempt to serve other corners of the "empire" as well (regular attendees came from both Santa Barbara and Carlsbad). Moving the meetings around seemed to change some of the faces (the die-hard kept coming anyway) but the numbers were about the same everywhere, 20 to 30 dinners.

Following his tenure as Past-President, and having presided over the nominating committee, Mr. Hatheway was invited by the Board, under Lonnie Hoyle, President, to chair a committee that would define a new "Fellows" position in OSSC. The initial Fellows inducted by OSSC were the visionaries who in 1959 founded the organization and later applied to the Optical Society of America.

As described above and in his biography, Al Hatheway gave a lifetime of *service to the Society and to the optical industry of Southern California*. He received strong approval to receive this award from the OSSC Board of Directors.

I am pleased to present OSSC Fellow **Al Hatheway** this Lifetime Achievement Award on behalf of the Optical Society of Southern California.

Bo Wang 2017-2018 President Optical Society of Southern California

Lifetime Achievement Awards

- 1. 2014 Dr Murty V. Mantravadi, aka M.V.R.K. Murty
- 2. 2016 Thomas Erwin "Tom" Godfrey
- 3. 2018 Alson E. "Al" Hatheway

Biography – Alson E. Hatheway



Mr. Hatheway was born and raised in Laguna Beach where he attended the local public school (there was only one, back then), played sports (football, basketball and baseball), surfed and generally bummed around (which had not as yet become a disrespectful term). He graduated in 1953 and enrolled at Orange Coast Col-

lege in the fall to major in chemistry. He rowed on the crew which was then in its third year at the college. In 1956 he rowed stroke in the college's cox-with-four shell and the team competed in the Olympic trials that year at Syracuse, New York. A change of academic major to mechanical engineering added a third year to his junior college career.

He completed his mechanical engineering studies at the University of California, Berkeley, earning a Bachelor of Science in January of 1959. At Berkeley he was a member of Phi Delta Theta and rowed on the crew, earning a junior varsity letter, under the legendary crew coach, Ky Ebright.

On graduation he accepted a position with Boeing in Seattle, arriving mid-winter 1959. He had the distinction of working on the end of the B-52 production line (models G and H) and the beginning of the Minuteman production line. After completely missing the summertime's of 1959 and 1960 (they come and go very quickly in Seattle) he returned to Orange County and settled in Newport Beach, taking a design engineering position at Aeronutronic.

In 1966 Mr. Hatheway decided to pursue his interests in optical instruments and systems more seriously and joined the Xerox Corporation at a subsidiary called Electro-Optical Systems (EOS) in Pasadena. He hired into the organization as the manager of Mechanical Engineering and was soon

involved in the design of night vision sets, specialty lasers, high intensity illumination systems and a variety of "optical" countermeasures for the military.

In Pasadena he discovered morning sun (the beaches are always gloomy in the morning), enjoyed the cultural life of the city and met and married Robin (nee Lewis) Hatheway (advice to young men: be careful from whom you buy furniture). He also enjoyed the small company environment that EOS fostered, which as it turned out was a portent, and the couple bought their first house.

In 1972 he accepted an offer from Hughes Aircraft's Electro-Optics Division in Culver City and he and Robin moved to Manhattan Beach. He was a section head serving both the Tactical Systems and the Strategic Systems Laboratories (under Stan Novak and Don Anderson, respectively). Mr. Hatheway was busy attempting to package space sensors with 50 meter apertures, Sam Williams presented the "Walrus" to DARPA and George Speak celebrated it in song and rhyme ("The Ode to the Walrus").

Eventually, family ties and cultural issues brought the Hatheways back to Pasadena in 1975 where their son, Jason, was born in 1976. Mr. Hatheway continued to commute for a year to Culver City but eventually (late 1976) he accepted a position with Gould Inc., which was closer (El Monte) to home (Pasadena). He had also resolved to open his own engineering office. In 1978 the couple's daughter, Teale, was born.

In January of 1979 he filed articles of incorporation for Alson E. Hatheway Inc. and in February entered the ranks of the gainfully unemployed, knocking on doors, calling on the phone, writing correspondence and generally getting the business going. In his passion to work in a small company he had created the ultimate small company: no time cards,

no weekly status reports, no management guidelines, no "policy" to enforce, no organization chart to revise, no organizational turf wars. He had only to satisfy the teeth of the market and the rage of the investors. It was, and remains, wonderful!

In 1980 Mr. Hatheway joined the Optical Society of Southern California, on Darryl Gustafson's advice, and found the experience exhilarating. In 1981 he was Program Chairman under Dick Altman and had the thrill of inviting Marjorie Minel and her husband to address us. Also Sam Pellicori on "The Shroud of Turin" and Frank Plummer {but you had to see the charts ("What's a waxicon? Why, its two of these [an axicon]")}.

As he worked his way through the offices of the OSSC in the mid-80s he was also helping the SPIE setup a long format (two or more days, full time) tutorial format called the "Engineering Update Series." The Update Series was introduced in Los Angeles during SPIE's January meeting here and the OSSC (Ivan Field, Ed Hagerott, Bob Chamberlain) were instrumental in the success of the SPIE venture. The Update Series was eventually folded into the SPIE's tutorial program but for a few years SPIE donated about \$1000 annually to OSSC in recognition of their support.

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Outside the OSSC activities, Mr. Hatheway has had an opportunity, working with many OSSC members, to develop his ideas about optomechanics: precision mechanics, Optical Analog™ analysis, the optomechanical constraint equations, brittle fracture criteria for optical materials, elastomer mechanics and Unified™ analysis. He has also patented optical scanners, infrared calibration targets, Angstrom™ actuators and track-pad™ micrometer tip cushions; some for his clients and some for himself (and more are on the way). The Rubicon™ actuator is currently being considered by NASA for the Next Generation Space Telescope, SBL, NEXUS and DCATT. The HECTOR™ calibration system permits nanometer-sized measurements to be traceable to the wavelength of light using conventional instruments (interferometers, profilometers, afms). Modern interferometers, especially their software, need calibration too! He has served two terms as a Director of SPIE and a term as President of the San Gabriel Valley Chapter of the AIAA.

The ensuing years have brought both business and pleasure. Mr. Hatheway is grateful for his many friends and associates in the optical community in Southern California and looks forward to each of the monthly meetings in which they celebrate the technology in each other's company.

Note: "Optical Analog," "Unified," "Angstrom," "track-pad," "Rubicon" and "HECTOR" are trademarks of:

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The Optical Society of Southern California was founded in 1951 to increase and disseminate the knowledge of optics and closely allied sciences and to promote the mutual interests of investigators, organizations, teachers and students in these fields.

The Society has been affiliated with the Optical Society of America as a local section since 1952 and meets typically on the second Wednesday of each month from October through June. We also support several educational outreach events each year. Those interested in promoting our goals are urged to apply for either Individual or Corporate Membership.

To find out more about OSSC meetings and membership visit www.ossc.org.