Vol LX No. 22 Editor: Peter Kruse



Crackers Editor

Next Meeting: **Jun 4, 2015** Next Editor: Merle Blasjo Phone: (805) 344-1925 E-Mail: <u>mblasjo@msn.com</u>

Next Sgt. at Arms: Vern Kemp Phone: (805) 618-8694 E-Mail: <u>vernkemp@yahoo.com</u>

Access the COSMO website at http://sbcosmo.com for current and archived issues of CRACKERS

Cosmo Members Ailing

If you know of a COSMO member ailing, please notify Curt Whiteman, Memorial & Visitation Chairman, 684-1034, whiteman@westmont.edu.

Guest Incentive Program

Members are encouraged to bring guests to our meetings, especially potential future members. The club will pay the guest's lunch on the guest's first visit. When a new member is inducted, the club will host lunch for the primary sponsor and the new member.

Meeting Staff

Ticket Sellers: Bob Miller & Paul Coyne

Punchbowl: Paul Hartloff Invocation: Bill Alexander

Audio-Visual: Jack Patterson, Bob Weber, Bill Alexander, Orlando Ramirez, Jim Belden

Sergeant-at-Arms: Vern Kemp

Photographers: Ron White and Dan Truex

Increase in Cost of Lunch

Members are reminded that the lunch costs are now \$22 per person and the exact change is always appreciated. Checks should be made payable to the Elks Club. To facilitate ticket selling, checks should be prepared in advance.

NEXT MEETING

June 4, 2015

Scott Reed

Expanding the Concept of Classical Music

A Summer Festival for Everyone



Scott Reed became the fourth president of the Music Academy of the West in August 2010. Under his leadership the renowned classical music institution has forged an unprecedented partnership with the New York Philharmonic, opened the Luria Education Center, and launched the Mosher Guest Artist Residency Program, which brings classical music luminaries to the Music Academy each summer. Participants have included Dame Kiri Te Kanawa, Midori, Jeremy Denk, Deborah Voigt, and Jean-Yves Thibaudet. Mr. Reed will present the Music Academy's program.

Mr. Reed previously served as vice president for Institutional Advancement at the Music Academy. He dramatically increased the Academy's fundraising capabilities and spearheaded a succession of multimillion-dollar campaigns for campus renovations. He came to the latter position via the San Francisco Opera, where he worked as associate director of development and led the nationally renowned Bravo! Club for nearly two years.

Mr. Reed served the Music Academy in many capacities, and was instrumental in the development of several signal initiatives, including the Academy's innovative Compeer Program, which pairs Fellows with donors and other Santa Barbara community members for informal socializing throughout the summer season.

Mr. Reed earned his bachelor's degree in vocal performance at the University of California, Santa Barbara, where he performed in opera productions, vocal ensembles, and solo recitals, and was awarded a music affiliate scholarship. Scott will be introduced by Gordon Bjork.

FUTURE MEETINGS

June 18, 2015

DAVID DWELLEY

MY TRIP TO IRAN, ARCHEOLOGY & MORE



After an engineering degree from MIT and an MBA from Harvard, David Dwelley had a 36 year career with Raytheon. Came to Santa Barbara as Asst. Manager in the late 70's/early 80's. Later managed several operations in the US and Europe. Became a Raytheon VP in 1989 and retired in 2000 and returned to Santa Barbara.

July 02, 2015

Independence Day Picnic

Manning Park, Montecito

Our annual Picnic for all members and guests starts at 11 am at Manning Park in Montecito. BYOB as the caterer does not have a license to serve alcoholic beverages. Delicious barbequed lunch with punch and lemonade will be provided. Please purchase tickets in advance at the May and June meetings so that we can give the caterer an accurate head-count. Only \$15.00/person, paid in advance to 'Cosmo Club' c/o Bruce Long, 4477-K Shadow Hills 93105 (692-4072). Please include names of attendees so that the nametags may be prepared in advance. A flyer is included with this edition.

WELCOME OUR GUESTS



Jim Dow introduced our guests:

George Surmeier was the host of Geoff Aggeler

Peter Kruse was the host of George Minch

Dennis Gaon was host of Frank Rierson

Welcome New Member

JOHN W. WARNOCK

599 Mountain Drive, Santa Barbara, CA 93013 805-965-4235 Cell 805-617-8808 johnwwarnock@gmail.com



John has resided Santa Barbara since 1967 with his wife, Dorothy and their two children, Matt and Julie. He received a BA in Political Science from Stanford in 1961 and

graduated by Hastings College of Law with a JD degree in 1967 where he was a member of the Order of the Coif. He acted as trial counsel for 40 years and retired to Of Counsel status in 2005. He served as a member of the Army Judge Advocate corps, and has been on the board of the Santa Barbara Symphony where he has served as General Counsel. He is a member of the Santa Barbara Yacht Club and is interested in classical music, choral singing, reading films art, and plays and participates in sailing, walking and exercise programs at the YMCA.

WINE DRAWING:

Bob Hassler drew the lucky ticket of John Rasmussen, who won a Lincort 2011 Chardonnay.

Silvio de Loretto won a Mammoth Crest 2012 Santa Rita Hills Tempramillo.

COMMITTEE RECRUITMENT

Vice President Bill Stancer announced that the following committees would welcome new members:

Crackers, Chairman Harv Turner

Invocation, Chairman Bill Alexander

Sergeant-at-arms, Chairman Ken Wolf

Door Prize, Chairman Bob Zimels

CONSTITUTION REVISION

The membership voted to approve the following change to the Club Constitution:

ARTICLE III

Membership

Section 1.

Membership shall consist of men who:

- a. Have a bona fide willingness and ability to participate in the activities of the club.
- b. Are substantially retired from a profession or business.
- c. Subscribe to this Constitution.
- d. Are elected to membership by the affirmative vote of the Membership Committee; provided however, that no one shall be elected to membership until after seven (7) days' notice has been given to members of the club by the Membership Committee, and the further consideration of any objections to membership that may be received by the Membership Committee during the seven (7) day waiting period.

Article III Membership, Section 2, of the Club's Constitution has been eliminated.

Proposed for Membership

FARZAND ALI FARUKI 570 MILLS WAY, GOLETA, CA 93117 805-685-1291

Fazi has resided in Santa Barbara since 1977 with his wife, Barbara and their two sons. He was an airline pilot with Skywest Airlines from which he retired in 2013. His course of study included aviation during his college career. His hobbies are reading, cooking and BBQ when not working out at the Gym. He has expressed interest in the Picnic, Punch Bowl and Lunch Ticket committees. His sponsors are Ron White, Pete Kruse and Ed Loper.

REGULAR EVENTS

DISCUSSION GROUP

The Discussion Group meets the third Thursday of every month in the upstairs room at roughly 1:45 pm, after the regular meeting adjourns. It is scheduled to conclude at 3:30 pm. The presentation generally takes some 30-45 minutes with the balance of the time available for discussion.

The group is open to individuals interested in engaging in fun discussions on important topics. All members are welcome and encouraged to offer comments and/or give a presentation. The next meeting of the COSMO DISCUSSION GROUP will be on May 21, and the topic **is Immigration Reform.** Albert Mercado will lead the discussion.

BRIDGE

Join us for FUN Bridge upstairs at the Elks Club after all regular meetings; we play until 3:30 PM. Chair Ed Loper, 967-8630, oliveloper@cox.net.

TENNIS

The tennis group plays doubles twice a week at a private court in Shadow Hills starting at 8:00 am Mondays and Thursdays. All tennis players are invited to participate.

Contact Bruce Long (805) 692-4072 or bruce93103@cox. net.

Time of Meetings 11:30 am - 1:30 pm

GOLF

Mondays we usually meet at the Santa Barbara Golf Club, (Muni). Tee times range between 9:30 am to 11:00 am, but seem to be most often beginning at 10:15. Regular walking senior rate is \$26 for 18 holes.

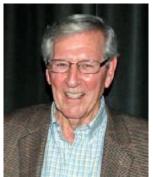


Contact Ron Singer (805) 684-1355 or <u>rsinger916@aol.com</u> by the prior Friday for your tee time. These outings are a great way to gain new members, so invite your friends.

We also have additional games at various courses. Contact Ron Singer to get on the e-mail notification list for the Floating Golf Game Circuit. Wandering Wednesday and Floating Friday locations will include courses throughout the tri-county area. A. B. Clarke, Steven Stonefield and Bill Clothier select the floating golf game sites. Ron Singer, Golf Chair: rsinger916@aol.com.

LAST MEETING





Dr. Jim Davis

History and Research at Lawrence Livermore National Laboratory

Dr. Jim Davis served as an Associate Director at the Lawrence Livermore National Lab. He was a member of the Armed Forces as a teenager. Later, he used his GI Bill to attend CalTech where he received a bachelors degree. He worked for Hughes and attended UCLA where he earned a masters in physics. He spent time in the late 60's in Ghana where originally he taught High School and later at the University. He returned to UCLA where he was mentored by a senior professor to pursue Quantum Physics in which he holds a Ph.D. He did laser and weapons R&D in private industry and Lawrence Livermore National Laboratory, where he was Associate Director for Lasers for 22 years; published widely, testified at congressional hearings; lectured at university; received Hughes and NSF Fellowships; and is a member of the American Physical Society. He was introduced by Chuck Curtis.

History and Research at Lawrence Livermore National Laboratory By Dr. Jim Davis

1940s

The first nuclear weapons were based on atomic fission, (breaking apart) of uranium or plutonium, and were used against Japan to end WWII. The political ambitions of Russia (and soon China) started a Cold War with the West, and Russia soon exploded its first fission bomb. Debate swirled in political and scientific communities as to how best to avoid nuclear war; and after the communist takeover in China, the question also became how to contain the spread of communism. The scientific community was split as to whether Thermo-Nuclear (TN) weapons, based on the fusion deuterium and tritium, should be developed. Robert Oppenheimer opposed development of TN weapons and supported the idea of sharing, even putting the UN in charge of all nuclear weapons, but Teller supported secrecy and rapid development of TN weapons.

1950s

Major policy decisions were catalyzed by the start of the Korean War which clearly demonstrated the ambitions of China and Russia. President Truman authorized development of TN weapons and the program was based on the Teller-Ulam conceptual design. A series of tests successfully proved the practicality of Teller-Ulam design. The Lawrence Livermore Lab was created as a competitor to Los Alamos. Oppenheimer's security clearance was revoked by the AEC. An aggressive development program ended with a Russian-American test moratorium agreement.

1960s

Russians break test moratorium by exploding a 58 megaton bomb and JFK authorizes all out testing (mostly atmospheric). Teller and Oppenheimer receive Fermi awards. Nobel Chemist Linus Pauling leads opposition to atmospheric testing, and nuclear testing was effectively driven underground.

1970s

Laser Driven implosions are developed and proved to be the first real option to test TN physics without bomb tests. James Schlesinger authorizes new laser programs at Livermore and Los Alamos with greater emphasis on simulators to reduce tests—more powerful lasers, high speed computers, rail guns, etc.

1980s

Reagan wanted to eliminate nuclear weapons by developing an effective defense. The Strategic Defense Initiative was to explore options; and because it introduced the possibility of space-based weapons to intercept and kill ICBMs, critics referred to it Star Wars. Livermore demonstrated an X-ray laser in the lab and that stimulated an aggressive nuclear driven X-ray laser test program. Some X-ray laser test was misinterpreted but used by Teller in a letter to Reagan in which he made invalid claims about the weapons potential. There was a scramble for new ideas.

1990s

The leading idea becomes space-based kinetic (impact) kill vehicles, emphasizing boost phase, and is called Brilliant Pebbles. Critical review committees conclude that such weapons could ultimately be feasible, but they recommend against development. Nevertheless, many new technologies were developed and a number of new small companies were founded.

Clinton wanted a Comprehensive Test Ban Treaty (CTBT). The politicians make a deal, CTBT in exchange for the Stockpile Stewardship Program (SSP) which includes 100 time increase in computing power, 20 times increase in laser power, more powerful kinetic energy impact system, and particle accelerator. SSP also supports maintenance of nuclear stockpile without testing.

2000s

Computer power expanded 100 times to 1000 Tera FLOPs. Computer simulations successfully make blind predictions of prior test results. National Ignition Facility (NIF) laser driven system completed in 2009, first laser to break mega joule threshold of delivering 1.1 mega joules of UV energy to target cavity (IR laser delivered 1.952 mega joules). SDI continues slowly under budget restraints with a ground based missile defense site at Ft. Greeley Alaska with 24 interceptors since 2004 for small attack from rogue nations (North Korea, Iran). Vandenberg also has 4 interceptors mostly used for tests. 50% of tests have been successful. University of California is no longer prime contractor at Los Alamos and Livermore after 65 years.

Today

Livermore now has a number of test facilities, including zero-yield testing of material, life testing of material, computer simulations of existing nuclear weapons configurations, and evaluating fusion physics questions using the NIF laser. Cosmo has seen ...typical NIF target, consisting of a pea-sized target containing deuterium and tritium that is compressed by X-rays, which are created when the laser beams hit the wall cavity holding the target. Recent test have shown.... Although the primary mission of NIF is to maintain a working knowledge of TN weapons physics, it is also hoped that it might be able to demonstrate the possibility of laser fusion energy,

Response to Questions:

There is an international program in France to demonstrate the feasibility of magnetic fusion energy at the power reactor scale. There is also a program exploring the possibility of modifying atomic structures that might allow production of Low-Energy Nuclear (fusion) Reactions, LENR. Laser fusion energy options are being explored in a number of laboratories around the world, but NIF has the highest energy laser system available in the world.

Cosmopolitan Club 4th July Picnic Celebration Thursday July 2nd 2015



Thursday July 2nd

2015 BBQ by "Cavelli's" with "all the fix in's"

Only \$15.00 per person, mailed with check payable to Cosmo Club c/o Bruce Long 4477 Shadow Hills Blvd. S Santa Barbara 93105 tel 805-692-4072

FURNISH Bruce with spelling of names of Guests for Nametags

<u>All Friends and relatives and Guests of members welcome.!!</u> Musical entertainment will be provided.

To be held upon arriving at 11:00 AM Area 9 Lower Manning Park. Picnic served after a BYOB social hour starting at 100 o'clock *Directions*: From Freeway drive to Montecito on W 101 ND EXIT Onto San Ysidro Rd, go North 1 mile then exit to Lower Manning Park at Santa Rosa Lane.