

## DECEMBER 2005 NEWSLETTER



# Holiday Greetings

### MESSAGE FROM CHAIRMAN BOYD FAIR



*Boyd Fair*

Can you believe we are at the end of another year? With all the warm weather in California, it is hard to believe that Christmas is almost upon us. Nevertheless, your December Newsletter is here! Our paparazzi photographers have been active for this issue. You will find many fine pictures covering a variety of social events in this issue. We encourage you all to share your pictures with your alumni friends and colleagues.

The big event since the last newsletter was our annual reunion. We had a turnout that exceeded even last year's fine event. In addition to the Hall of Fame awards normally given out at this event, Roy Kornbluh gave a very interesting talk and demonstration on some of the promising research being done in electroactive polymers and their applications. And of course, there was lots of good music from the Instooters and socializing among the alumni and their friends/spouses.

There are articles on the latest Mimi and SRI Fellow awards, along with some information on SRI's participation in the New Orleans Relief Effort and street beautification activities in Menlo Park.

You will find articles on the activities of some of our (still) active alumni as they enjoy their retirement life here in the US as well as the continuing get-togethers of our English colleagues. There are also some pictures of some of the alumni and SRI staff as they enjoyed their recent golf vacation in Maui.

Your alumni Steering Committee hope that you enjoy this issue of the Newsletter and as always, my personal thanks to Bob and Joyce for all their hard work in putting it together. We also solicit your ideas and inputs on any ways we can make the Newsletter better, or suggestions for other ways that your Association can be more valuable to you.

I hope you all have a happy holiday season. – *Boyd*

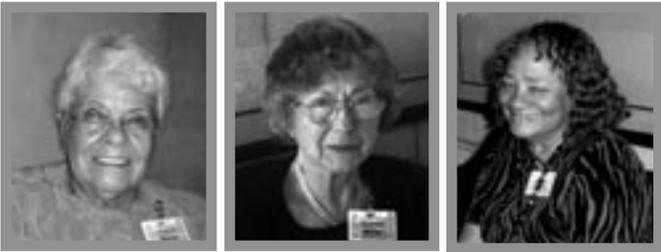
*We have received numerous e-mail address changes this year and are actively trying to keep our database accurate and current. Your help and feedback is essential in this process. Bounced email doesn't get to you and makes a lot of work for all of us on the Steering Committee. Please help us by making sure we have your latest email address and notify us of any changes you have -- for yourself or others in the association you may know of. Also, check your spam filters to open them up to mail from members of your steering committee so we can send you timely information about alumni activities.*

**ATTENTION:** If your e-mail address is listed below, messages sent to you have been returned because of an error. Please contact Joyce Berry at [rjoyceberry@sbcglobal.net](mailto:rjoyceberry@sbcglobal.net) with your correct address. Thanks.

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# 2005 ALUMNI REUNION

More than 130 alumni and guests gathered in the I-building on October 20 to greet old friends, tap toes to the Institooters, and enjoy hot and cold hors d'oeuvres.



*Joyce Berry, Dorris Miller, Melba Harrison, along with Jane Cano, welcomed the alumni members and guests at the door.*



*Thanks Sophie for another fine selection of hors d'oeuvres. Everything was delicious and very much appreciated.*



*Thank you Institooters for another fine performance. We love that Big Band sound!*



*We caught up with Jane in the food line!*



## 2005 ALUMNI REUNION (Continued)

Attending were alumnus George Durfey and his wife Edith. Movies made during the construction of the Big Dish, George's baby, were shown in the background in the Dining Room during the social hour.

[George's project was described in the Alumni Newsletter in August 2004, and the movies were made into a DVD for History San José.]



## 2005 ALUMNI REUNION (Continued)



*Our Host, Boyd Fair*

Alumni Association Chair Boyd Fair introduced SRI President Curt Carlson, who greeted alumni and described the current State of the Institute during a second great year in a row.

The featured speaker was Roy Kornbluh who described his work at SRI with plastic that can be electrically activated to perform as muscle. [see page 13] Roy's peppy presentation and live demos really captured our attention.



*CEO, Curt Carlson*



*Guest Speaker Roy Kornbluh spoke on the attributes of "Artificial Muscle."*



*Murray Baron, Chairman of the Hall of Fame Committee, announced the 2005 recipients.*

Three new members were inducted into the SRI Alumni Hall of Fame. [See the enclosed booklet.]

John P. McHenry was on hand to receive his certificate and make suitable remarks, expressing appreciation and sharing the honor among his former collaborators. Inducted posthumously were Catherine P. Ailes and Charles Tyson.

After the raffle of door prizes there was more socializing over cake and coffee.

Thanks to SRI and the SRI Credit Union for financial support, to Staff Activities for contributing door prizes, Security for providing colorful badges, and to the Reunion Committee for all their hard work in organizing a fine event.



*VP Dennis Beatrice accepted the award for Catherine P. Ailes*



*John McHenry was present to accept his award.*



*Mrs. Noriko Tyson and her daughter, Corie, received the award for Charles Tyson.*

## 2005 ALUMNI REUNION (Concluded)



*The photos on these pages were taken by Don Berry and Bob Schwaar.*

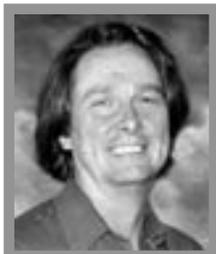
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Did you miss the reunion? Would you attend if the event were somehow arranged differently? Tell us what it would take to get you to come...write SRI Alumni, AC-110, 333 Ravenswood, etc., or e-mail the Editor, [schwaar@pacbell.net](mailto:schwaar@pacbell.net)

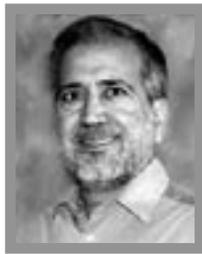


## MIMI AWARD WINNER AND SRI FELLOWS HONORED

SRI's annual Mimi and Fellows Awards presentation on November 8th recognized Patrick Lincoln and Ripu Malhotra as SRI Fellows for 2005, and Christine Peterson as the 2005 winner of the Mimi Award.



*Patrick  
Lincoln*



*Ripudaman  
Malhotra*



*Christine  
Peterson*

The Fellowship Award recognizes exceptional staff members for their outstanding accomplishments. The Fellowship is given to individuals whose work enhances SRI's image as a leading research and problem-solving organization. It is SRI's highest recognition for technical, scientific or professional contributions.

**Patrick Lincoln**, Director of SRI's Computer Science Laboratory, leads research in the fields of formal methods, computer security and privacy, computational biology, scalable distributed systems, and nano-electronics. He has directed multi-disciplinary groups for high-impact research projects including symbolic systems biology, scalable anomaly detection, exquisitely sensitive biosensor systems, strategic reasoning and game theory, and privacy-preserving data sharing and analysis. For example, he developed a method to address sublithographic-scale electronic devices using modulation doping of nanowires.

**Ripudaman Malhotra**, associate director of SRI's Chemical Science and Technology Laboratory, considers himself a soldier in President Jimmy Carter's "moral equivalent of war" to gain energy independence. He has worked extensively on the processing, properties, and analysis of coal, oil, and natural gas. By conducting detailed mechanistic studies in these systems, he has developed innovative processes to achieve desired product selectivity and increased efficiencies. His work on coal liquefaction and pyrolysis resulted in identification of novel pathways for hydrogen transfer by which strong bonds in coals are broken, and his work on fullerenes led to the discovery of the catalytic properties of the fullerene soot—the by-product—for hydrocarbon processing.

\*\*\*\*\*

The innovative Mimi Award, named in memory of Marian (Mimi) S. Stearns, who was vice president of SRI's Health and Social Policy Division, is the highest recognition offered to staff members who have fostered the personal and professional growth of their co-workers. In recognition of her embodiment of these attributes, **Christine Peterson** was selected to receive the 2005 Mimi Award.

Chris, who joined SRI in 1974, is director of program development for U.S. civilian government agencies. Her group, located in SRI's Washington, D.C. office, is known throughout SRI for their insights and skills in identifying new business opportunities and maximizing SRI's relationships with clients such as the National Institutes of Health and the National Science Foundation. Staff members who nominated Chris for the award cited her strong team-building and mentoring abilities. SRI's Washington, D.C. office will hold a special event to celebrate her award.

### ALUMNI ON THE MOVE

Edward Acton from Menlo Park to Saratoga, CA  
Robert Daly from Springfield, VA to Mt. Pleasant, SC  
Penny Foster from Arlington, VA to Oakland, CA  
Albert Macovski from Menlo Park to Palo Alto  
Robert Richardson from Los Gatos to Reno, NV

Karen Bailey from Atherton to Palo Alto, CA  
Allan Dolgow from Stockton to West Sacramento, CA  
John Kenney from Seattle to Renton, WA  
Janet Paul from Menlo Park to Albuquerque, NM  
Willard Tiffany from Palo Alto to Medford, OR

## HISTORY CORNER

### SWOT Analysis for Management Consulting

by Albert S. Humphrey

*Shortly before he died, Albert “Humph” Humphrey prepared a paper that describes the methodology that he learned at SRI in the 1960’s and used as a basis for a 35-yr career as an independent management consultant dba Business Planning & Development. Here is his paper, abridged with permission:*

SWOT analysis came from the research conducted at SRI from 1960-1970. The research was funded by the Fortune 500 companies to find out what had gone wrong with corporate planning and to create a new system for managing change. Led by Robert Stewart, the Research Team also included Marion Doshier, Dr Otis Benepe, Birger Lie, and me.

Corporate Planning struck first at Du Pont in 1949, and by 1960 every Fortune 500 company had a Corporate Planner. But nearly all of these companies felt that Corporate Planning, aka Long Range Planning, was not working. They knew that managing change was difficult and often resulted in questionable compromises.

From 1960 through 1969, we interviewed some 1100 organisations. A 250-item questionnaire was designed and completed by over 5,000 executives. Seven key findings lead to the conclusion that the Chief Executive should be the Chief Planner and that his immediate functional directors should be the planning team.

The key research findings were never published as being too controversial. But this is what we found:

1) A business can be divided into two parts: The base business plus the development business. [This was re-discovered by Dr Peter Senge at MIT in 1998 and published in his book “The 5th Dimension”]. The development business turns over every 5 to 7 years. This was a major surprise and urged the need for a better method for planning and managing change.

2) All people measure what they get from their work and divide it by what they give to the work and this reward/effort ratio is compared to others. If it perceived as too low, the person slows down.

3) The introduction of a corporate planner upsets the sense of fair play at senior level, making the job of the corporate planner impossible.

4) The gap between what could be done by the organisation and what was actually done was about 35%.

5) The senior man will over-supervise the area he comes from.

6) There are 3 factors that separate excellence from mediocrity:

- a. Overt attention to purchasing
- b. Written departmental plans for short-term improvement
- c. Continued education of the Senior Executive.

7) Formal documentation is required for approval of development work. In short, we could not solve the problem by stopping planning.

We started as the first step by asking, “What’s good and bad about the operation?” Then we asked, “What is good and bad about the present and the future?” What is good in the present is Satisfactory, good in the future is an Opportunity; bad in the present is a Fault, and bad in the future is a Threat. Hence S-O-F-T. This was later changed to SWOT—don’t ask. (I’m told that Harvard and MIT have claimed credit for SWOT...not so!)

Following the analysis step, we sorted the issues into six programme-planning categories of:

Product-- process-- customer-- distribution -- finance-- administration

By sorting the SWOT issues into the 6 planning categories one can delineate short- and long-term priorities. This approach captures the collective agreement and commitment of those who will ultimately have to do the work of meeting the objectives.

The action plan then becomes “what shall the team do about the issues in each of these categories?” The planning process was developed into a 17-step process beginning with SWOT. This sorting step can be easily done since each issue is recorded separately on a single page called a planning issue. As Robert Stewart said at the time we developed it – “SWOT identifies all of the claims on management’s attention”

The first prototype was tested and published in 1966; modifications were completed by 1973. The operational programme was first used to merge the CWS milling and baking operations with those of J.W. French Ltd. The process has been used successfully ever since.

By 2004 the system had been fully developed, and has proven to cope with today’s problems of setting

## HISTORY CORNER (Concluded)

realistic annual objectives without depending on outside consultants or expensive staff resources.

In conclusion, we boiled down the key advice to:

1) Give all members of staff the opportunity to submit their own personal views of what is Good and Bad/ Present and Future from their position in the business; 2) Urge staff to identify trivial issues, for that's where the gold lies--not in the "Big Ideas"; and 3) Ask staff to write legibly and divide the ideas into the six classifications.

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## NEWS FROM UK ALUMNI

**David Gibby** writes that on Sunday 23rd October 2005, sixteen UK alumni met at Syon House, on the north bank of the River Thames in south London, not far from Kew Gardens, for a conducted tour of the Duke of Northumberland's "ancestral home" and gardens. The house is popular with film-makers, and some of the scenes from "Gosford Park" (among many other films) were shot there.

We were fortunate that the weather that day was lovely — the next day it seemed that Hurricane Wilma's little sister had arrived in the UK!

After we had visited all the rooms (including the bedroom in which the Princess Victoria slept for six years before becoming queen), we had lunch in the Refectory. Following a walk around the gardens, we concluded with tea at Peter & Audrey Miles' house, with lots of delicious cakes!

Thanks to **Peter Miles**, who made all the arrangements for this fine outing.

Readers can view photos of the event (in colour) at the UK alumni web-site <http://members.aol.com/SRIAlumniUK/> then click the "Syon House" navigation button.

*In a final e-mail, Humph said:*

*"Yes, I am still consulting - rather coaching and a bit of mentoring. I will work in Monaco this coming week for Maia Institute to help them create a development plan to accelerate their research in a predictive model for trading foreign currency.*

*"Then I will help Mortgage Plc create a development plan for competing with the high street mortgage lenders.*

*"In October I will give a seminar in Rumania for CODEC on "Team Action Management"--also a product of SRI".*

*---Humph, 9/7/05*

## WATERCOLORS EXHIBIT

Member **Helen Gibson** is having a retrospective exhibit of her watercolors, mostly Bay Area landscapes, early next year. After she received an AB in art from Stanford, Helen taught art in San Francisco before she married Hoot Gibson in 1938.

A selection of 25 of Helen's finest paintings, representing over 60 years of work, will be on display in the Stanford Faculty Club from January 7 until February 10, 2006. (Hours are from 8 to 5 on weekdays.) The exhibition kicks off with a special reception (by invitation) on January 8.



## NEWS FROM ALUMNI

### Kapalua and Golf!

The 9th annual trek to Kapalua, Maui, organized by Sandy and Brock Hinzmann, took place from Sept. 27 to Oct. 4 this year. Some of the faithful Kapalua



*Photos by Boyd Fair*

golfers included Boyd and Joan Fair (this year joined by Joan's brother and his wife), John Johansson and Lily Young, Jim and Mary Jo Colton, Capp Spindt and Shari Shepherd, J.D. Smith and Libby Macris, and Bill Opsahl, to name a few.



Although the focus is on golf, the tournaments are low-key and fun. Joan Fair and Brock won the 1st "Blind Draw" tournament at the Aloha Nui Nui welcome party.

This year the prizes should have been towels! Most of the golfers were not deterred by the rain, though. During the two short downpours, golfers just sat in their carts and patiently waited for the sun to return.

Midweek, a special dinner was planned at Roys' to help Shari Shepherd and Libby Macris celebrate their 25 Years at SRI! It was such a great event that it was repeated at the Ritz Carlton's Banyan Tree restaurant! The farewell party and awards ceremony began with Azeka's Famous Ribs and the traditional Mai Tais, along with lots of pupus. It's always hard to bid a fond Aloha...until 2006! --Sandy Hinzmann

### Triathlon for Leukemia

**Greg Bohlmann** recently participated in a triathlon as a personal test and to raise money for leukemia research. Here is what he wrote:

"Sunrise in Santa Cruz on September 11 was spectacular without any fog in sight. It was also a surreal vision as 700 triathletes gathered on the beach for the early morning start of the Big Kahuna. I was pleased

to find the ocean very calm that day which made my 1.2 mile swim easier than I had anticipated. I felt good as I got out of the water (although quite cold) to begin the 56-mile bike ride. Again we were quite blessed with the weather as winds were minimal for the ride up and back on Highway 1. To finish off the event, we ran 13.1 miles along the cliff overlooking the ocean.

"The event was like a dream for me. I was surprised by my sister who came all the way from Indiana to cheer me on. (I just think she had to see for herself whether her big brother could actually jump in the ocean for a long swim.) Thanks to everyone for all your support and encouragement; it was truly felt on September 11. The names of 10 honorees were with me as I went through my 6.5-hour adventure that day.

"The event was a fund-raiser for the Leukemia and Lymphoma Society. My training group raised over \$300,000 for their cancer research programs."

To see Greg in action in full color, visit [http://www.brightroom.com/view\\_user\\_event.asp?EVE\\_NTID=7927&PWD=&BIB=589](http://www.brightroom.com/view_user_event.asp?EVE_NTID=7927&PWD=&BIB=589)

*Greg joined the Process Economics Program at SRI in 1988, and is still with SRI Consulting. He became an SRI alum when SRI Consulting was sold.*

### Harry Johnson Knows Wine

Wines from Santa Cruz, Santa Clara, and San Benito counties are featured at Vino Locale, a Palo Alto wine bar opened early this year by **Harry Johnson** and his partner, Randy Robinson. Located in a charming Victorian house on a side street just off busy University Avenue in Palo Alto, Vino Locale seems a world away, especially at the tables in the back yard by the koi pond and champagne-bottle fountain. Also a café, it offers light lunches and dinners, mostly made from organic food, locally produced and seasonally fresh.



But Harry tells us that the main attraction is the wine. He boasts of a large selection, changing monthly,

## NEWS FROM ALUMNI (Concluded)

and all available by the taste, the glass, or the bottle. Serious wine tasters will be ready for a flight of wines for comparative tasting. Wine bottles line the walls, and the selection changes frequently. Local wine-makers are invited for chat every week.

Vino Locale has been mentioned in publications as far away as Washington, D.C. See more at [www.vinolocale.com](http://www.vinolocale.com)

Harry Johnson was a Chemical Engineer in the Process Economics Program from 1988 until 1990. He has a day job in Mt. View.

### A Note from Jerry Jones

A little over four years ago, **Jerry Jones** joined Optiva, a start-up venture in liquid crystals, as VP of Chemical Process Development & Manufacturing. He was based in South San Francisco. It was a great experience but \$50 Million was not enough to make it a profitable venture. Neither the investors nor Jerry made the money they hoped to, and they wound up selling all of Optiva's intellectual property to Nitto Denko in Japan. From Optiva's conference room at

the end of Oyster Point, overlooking the Marina in South San Francisco, Jerry could see the Genentech building off in the distance. Jerry was lucky to be able to walk out of Optiva during the sale and into Genentech, which he joined in late April.

Jerry writes, "At Genentech I am in charge of safety and environmental protection for the manufacturing operations in South San Francisco and starting a new program in process safety for all of the plants. From my days at SRI I learned about most of their process technologies when we were working to develop a competing product for their clot buster TPA, and when we did work for Genentech on recombinant protein processing for aerosol delivery of growth hormone."

**Missing:** We've lost touch with alumnus Tony (Anthony) Ferrera.

Do you remember him? He worked as an Electronic Technician, later becoming Supervisor of Technical Services in ESD, from 1963 to 2003, when he retired to San José. If you know of Tony's whereabouts, please let us know.

## NEWS FROM THE CREDIT UNION

- Competitive & Flexible Certificate Rates
- Competitive Savings Rates
- Home Equity Lines of Credit
- Home Mortgages
- Visa Credit Cards with Tailored Rates
- Free Checking with ATM Fee Rebate
- Free Online Banking & Bill Payer
- Free Notary Services for Credit Union Members

SRI Federal Credit Union is pleased to support the activities of the SRI Alumni Association. Your colleagues who are Credit Union members already know that they can count on the Credit Union for superior banking service. If you are not a credit union member, join today and find out for yourself the benefits of a financial institution focused on you.



SRI FEDERAL CREDIT UNION  
[www.srifcu.org](http://www.srifcu.org)  
 800-986-3669

## NEWS FROM SRI

### 25 years Ago at SRI



On October 31, 1980, this strange object appeared perched on the new vent stacks behind Building P. Rumor had it that Phil Green's team was responsible for its late-night secret installation. It was an engineering feat to install it and remove all traces of the technique. After several days, a crane was brought in to remove the gargoyle.

### SRI Team Wins Literacy Fundraiser "Trivia Bee"

An SRI team has won the Project READ Trivia Bee for the first time since 1992! Congratulations to Max Crittenden, Roy Kornbluh (both of the Engineering & Systems Division) and Robert Keene (Security), who bested dozens of teams at the October 14 event at Cañada College in Redwood City. A second SRI team, comprised of Jim Kerr (Central Publications), Marty Mallonee (Corporate and Marketing Communications), and Kevin Hufford (Engineering & Systems Division), reached the finals at this annual fundraiser, which benefits Project READ, an organization committed to improving adult and adolescent literacy.

The event features three rounds of increasingly difficult trivia questions on topics ranging from geography and science to literature and pop culture. The winning SRI team unseated perennial Bee winners "The Ineffables", who placed third this year. In second place was a team from Google, whose members reportedly included a former Jeopardy Tournament of Champions contestant.  
--Sandy Hinzmann

### Kinney Thiele Retires



*SRI Photo*

After 29 years at SRI, Kinney Thiele, for many years the first contact of the outside world with SRI, will be retiring in early January.

Kinney joined SRI in 1976 as a Secretary [remember them?] in the Process Economics Program, working for Ken Lunde. She moved on to Decision Analysis as a Senior Secretary, then became their Seminar Coordinator. She served as chair of the Institute Staff Advisory Group in 1980, in which position she got to know people in many parts of the Institute.

Growing restless as a Research Analyst in the Management Consulting Center in 1985, Kinney applied for the Peace Corps, and took a leave to go off to Africa as Head of Health and Rural Development in the Kori chiefdom in Sierra Leone. Hardly a PhD in sight there. After surviving two years in the bush, she returned to SRI in 1988, for a time in TIA, then as Senior Secretary in the International Management & Technology Center, later as a Marketing Administrative Coordinator in the Marketing Information Center. These were training for her true calling, that of Inquiry Coordinator for all of SRI, berthed in the Public Relations office.

Since 1995, Kinney has enjoyed matching inquiries with the skills of the SRI staff. She knew just who could best respond to the needs of a potential client, calling blind on the phone. No one really knows how many projects resulted from such beginnings.

But she admits that SRI's web pages now make it easier for anyone to explore the Institute's skills bank at their leisure, and she does not expect that her job position will be filled.

In her retirement, Kinney plans to read, write, and travel; she hopes to fly around the world—westward—to Sweden to visit her son.

In running the Inquiry Line, Kinney had to be acquainted with people in all parts of SRI and their specialized knowledge and expertise. More than 100 of them, past and present, planned to give her a sendoff on December 1. Farewell, Kinney!

## NEWS FROM SRI (Concluded)

### SRI Staff Assist with Hurricane Relief

SRI staff members across the U.S. are giving generously to relief efforts for those affected by Hurricane Katrina, with more than \$30,000 in contributions made to date. SRI has also matched staff donations up to \$20,000 with a donation to the American Red Cross. Staff members are giving their time and talents as well. Here are some of their stories:

Senior Environmental Health & Safety Specialist **Mariano Caunday** from SRI-Menlo Park participated directly in Hurricane Katrina rescue, relief, and cleanup efforts as a member of the Menlo Park-based California Task Force 3, National Urban Search and Rescue (CATF-3 US&R) team. Mariano traveled through New Orleans by boat to locate residents and attend to their medical needs.

**Steve Rooks**, Receiving Clerk in Shipping and Receiving, Menlo Park, helped with relief efforts at an evacuation center in Rayne, LA (east of Baton Rouge). Steve joined the effort on September 4 and worked in the Gulf region for about three weeks. He worked 12-hour days to help with cooking and other tasks. Steve, a long-time volunteer with the American Red Cross, has worked at many disasters: the Santa Cruz floods in 1982, Hurricane Hugo in 1989, Hurricane Andrew in 1991, and the floods in St. Lewis in 1992.

As Hurricane Katrina approached Camp Shelby, an Army National Guard training site in Mississippi, SRI staff member **James Kenney** had the foresight to secure SRI's DFIRST Base Station and Relay Trailer located there. While the camp experienced considerable wind and water damage, the valuable DFIRST equipment, used as part of combat training exercises, went undamaged. James, the DFIRST Mission Support Manager, secured the equipment by strapping it to anchors that he drove five feet into the ground.

Two other members of SRI's Environmental Health & Safety (EH&S) Department are members of the California Task Force 3, National Urban Search and Rescue (CATF-3 US&R) team: Fire Protection Manager **Jim Beebe** and Hazardous Materials Technician **Paul Zizzo**.

### Trees on El Camino

This summer, SRI International made a \$2,500 donation to **Trees for Menlo**. In a joint venture with the City of Menlo Park, Trees for Menlo has spearheaded the drive to beautify El Camino Real by planting trees all along the sidewalks and median. This effort received the Lady Bird Johnson Award of the National Arbor Day Foundation. Check out their website at <http://www.treesformenlo.com>

SRI's contribution will fund the planting of trees in the median between the San Francisquito Creek and Middle Avenue.

Trees for Menlo has raised more than \$ 240,000 so far in private and corporate donations. A plaque honoring the major individual and business donors to date has been installed on the sidewalk in front of Cafe Borrone and Keplers.

*Thanks to Walter Jaye for sending us this item!*

#### WELCOME NEW ALUMNI MEMBERS

The SRI Alumni Association welcomes new members:

Steve Baughman	David Benson
Nancy Bradford	Eldon Fernandes
Jerry Gleason	Jon Heim
Christopher Hoadley	Joanne Hopkins
Harvey Lahtman	Andres Molina
Howard Peters	Katherine Sariq
Monika Schaffner	Joan Schooley
Jane Simons	Eleanor Sorenson
Don Sumner	Carolyn Terrill
Mas Tanabe	Norika Tyson
Rodol Whitley	Margaret Wooldridge

We look forward to your participation in the Alumni Association and hope to see you at our next group event.

We also welcome back former members who have reactivated their membership for 2006:

Gerry Andeen	Bruce Baker
Alan Burns	Ron Collis
Phyllis Dorset	Doug Engelbart
James Fuller	Geoffrey Steel

## SRI RESEARCH

### Electricity Directly from Pulverized Coal: Direct Carbon Fuel Cell (DCFC) Technology

On November 14, SRI International shared its expertise in clean electric power generation at the 2005 Fuel Cell Seminar in Palm Springs. Drs. **Iouri Balachov**, SRI senior research engineer, and **Larry Dubois**, SRI vice president, participated in a panel of distinguished researchers as part of the Direct Carbon Conversion Workshop. At the workshop, Iouri and Larry introduced SRI's direct carbon fuel cell (DCFC) technology to the fuel cell research community.

DCFCs convert the chemical energy in coal directly into electricity without the need for gasifying the coal. SRI's new DCFC technology has several potential benefits. It produces electricity at a competitive cost from a variety of fuels including coal, coke, tar, even biomass and organic waste. In addition, it is twice as fuel-efficient as today's coal-fired power plants, resulting in reduced CO<sub>2</sub> emissions. The process produces almost pure CO<sub>2</sub>, which can be easily captured as a concentrated stream for downstream use or disposal.

The US, which has extensive coal reserves, will continue to use coal as a primary source of electricity for many years to come. However, today's coal-fired power plants convert coal into electricity with relatively low efficiency. Moreover, such plants produce toxic emissions, greenhouse gases, and heavy metal pollutants. For the U.S. to achieve energy independence in an environmentally sustainable and economically feasible way, a clean, efficient and direct process to convert coal into electrical energy is needed. SRI's novel DCFC approach has the potential to satisfy all of these demanding requirements. It also is expected to have comparable or lower capital and operating costs.

SRI's DCFC system mixes the best features of two demonstrated technologies: solid oxide fuel cells and molten carbon-air fuel cells. The one-step, clean, efficient process transforms pulverized coal (or other carbon-containing fuels) directly into electricity through the electrochemical oxidation of carbon.

### Low-Cost Hydrogen from Water

The US Department of Energy (DOE) has awarded an SRI-led team a four-year, \$2.2 million contract to develop a prototype of a modular industrial system that uses steam electrolysis for low-cost generation of hydrogen.

SRI's proposed steam electrolysis system is expected to be a much more energy-efficient way to produce hydrogen from water than conventional electrolysis. The

goal is to generate ultra-pure hydrogen at a cost of \$2 to \$3 per gallon gasoline equivalent (gge), delivered, compared with the average current cost of hydrogen by electrolysis of more than \$4. SRI's modular system design will allow scaling up and customization to meet a variety of site-specific needs.

"SRI has a scientifically proven approach, expertise in industrial implementation, and a clear understanding of the technical issues related to prototype development," said **Iouri Balachov**, SRI senior research engineer and the project's principal investigator. "A modular, efficient hydrogen generation system will address some of the technological and economic constraints that are impeding advancement of a hydrogen-based economy."

As fuel, hydrogen must be produced by either splitting water or by extracting it from hydrocarbons. The most widely used method of splitting water is electrolysis, in which an electric current reduces water to hydrogen and oxygen. With steam electrolysis, some of the energy is added as heat, instead of electricity, which makes the process more energy-efficient.

SRI has overall responsibility for the project team's technical and financial performance, and is responsible for the design of the experimental system and the conduct of experiments. SRI Consulting-Business Intelligence (SRIC-BI), an SRI spin-off, will perform an economic analysis. SRI and SRIC-BI will provide recommendations and technical documentation for field deployment of the system.

### Electroactive Polymer Artificial Muscles

In 1992 SRI invented a new type of muscle-like actuator made of a flexible polymer, activated by electricity. Since then SRI has been exploring applications in walking, crawling and flying robots as well as applications in medical devices, aerospace, toys, automobiles, industrial machines and more. In 2004 spinoff Artificial Muscle Inc. was founded. SRI continues to improve the technology and work on new applications for both the government and commercial sector. *[The commercial venture was described in the August 2004 Alumni Newsletter, page 10.]*

*At the 2005 Alumni Reunion, a talk and live demo on the history and possibilities were presented by Roy Kornbluh, Senior Research Engineer in the Robotics and Transducers Program, Engineering Sciences Division.*

## IN MEMORIAM

### Lloyd Alterton

Lloyd E. Alterton, whose ID number was 310, recently died. He retired in 1998 after spending over 50 years at SRI. Lloyd was a highly sought-after Design Engineer in the Applied Electromagnetics and Optics Lab, working under Joe Nanevicz. Throughout his years at SRI, Lloyd applied his mechanical engineering and design skills to projects such as the Laser Photo-coagulator, described in Don Nielson's book, "A Heritage of Innovation". Lloyd also worked on the Eye Tracker system in the 1960s and 70s, the Postal Service sorting machine in the 1980s, and the Ocean Optics and the Apollo-Plus programs in the 1990s.

### Hugo Bianco

Hugo Joseph Bianco died on Aug. 26. He was 91.

Hugo had been a Janitor in the Maintenance and Construction Department and later for Central Staff Conference Services. He retired in 1975.

Born in 1914 in San Francisco, Hugo was raised on dairy farms in Gonzales and Salinas. He served in the US Navy in the Pacific during WW II. Before he joined SRI in 1966, Hugo had been the owner/operator of the Dumbarton Oaks Grocery of Redwood City.

Survivors include Frances, his wife of 58 years; daughter Denise Michael of Washington, son Dennis of Petaluma; eight grandchildren, and five great-grandchildren.

### Charles Black

Charles Black, the husband of Shirley Temple Black, died on August 11 at age 86 in his Woodside home. A little-known part of his life was the three years, early in their marriage, when he worked at SRI as Manager of Business Services in the General Administration Division (1954-1957). The rest of his life was much less prosaic.

Born in Oakland in 1919, he claimed ancestors that included John Alden of the Mayflower Pilgrims and a Cherokee Indian chief. In 1940, Charles earned a BA in Political Science from Stanford in only three years, then served as a Naval intelligence officer on more than 100 PT boat patrols in the Pacific. He also served as a scout in Japanese-occupied Indonesia. His WW II medals include the Silver Star.

Between sailing in Tahiti and surfing in Hawaii, Black found time to earn an MBA from Stanford in 1946. But it was on a fateful night in Honolulu in 1950 that he met Shirley Temple at a cocktail party. It must have been love at first sight as they danced the night away to a Tahitian love song.

Cautious from a recent divorce, Shirley had her friend J. Edgar Hoover, check Charles out before she agreed to marry him. They married in December 1950 at his parents' home in Monterey.

It was just after he returned from another tour in Naval Intelligence during the Korean conflict that Charles worked at SRI, then later at Ampex. But aquaculture became his life's work from the 60s on. He co-founded a hatchery for oysters and abalone, and later started a venture in catfish and salmon farming.

Never intimidated by the fame of his beautiful wife, he was proud of her accomplishments. When Shirley was appointed to several important diplomatic assignments in the late 60s and 70s, Charles went along. In fact they were seldom apart during their 54 years of marriage.

Other survivors include his brother James, Jr. of San Mateo; daughter Susan Falaschi of Menlo Park, daughter Lori Black and son Charles, Jr., both of San Francisco; and a granddaughter.

### Mary Doeltz

Mary Katherine Doeltz died on September 22. She had been the Program Director of the Chemical Environmental Program in the Chemical and Resources Division.

Mary earned a BA in biology from the College of Notre Dame in 1968, and came to SRI in May 1974. She began as a research Analyst in the Economics Division. She left in May 1987. *Further details are not available.*

### Wing Fong

Wing Sien Fong, 74, died of a sudden heart attack on October 18 at Stanford Medical Center. He had been a Chemical Engineer in the Process Economics Program for nearly 30 years.

Born in 1931 in Manila, in the Philippines, Wing came to the US to further his education. Studying Chemical Engineering at MIT, he received a BS in 1954 and an MS in 1955. He also took music classes and drafting classes, where his drafting skills led his professor to suggest that he become an architect. He came to love classical music and pop music of the 40s and 50s.

Wing's older brother had married in the Philippines, so after college, Wing returned there and married the sister of his brother's wife. He worked on the US East Coast for a food company, later for American Cyanamid, designing chemical plants.

In November 1966, Wing joined SRI as a Chemical Engineer in the newly formed Process Economics Program in the Industrial and Development Economics Department. He spent his entire SRI career preparing authoritative techno-economic reports on specialized areas of the chemical industry. Wing was regarded as a world expert in a dozen of these areas, and gave invaluable assistance on single-client projects.

Wing transferred with the PEP group to SRI Consulting at its inception, and retired early in 1996 as a Senior Consultant.

After retirement, Wing enjoyed his Los Altos Hills home, walking, and relaxing with his grandchildren.

He is survived by his wife Lourdes and their three children: daughters Gwen F. Gibbons of Thousand Oaks and Genevieve Fong of Santa Monica, and son Tim of Moraga; a son-in-law Greg, a daughter-in-law Lynn; two brothers and four sisters; and four grandchildren.

### Albert Humphrey\*

Albert "Humph" Humphrey passed away suddenly, of a heart attack, on October 31. He was 80.

He earned a BS in Chemical Engineering at the University of Illinois in 1946, followed by an MS, also in Chemical Engineering, from MIT in 1948, and an MBA, (Finance and Control) from Harvard Business School in 1955.

Humph joined SRI in January 1965 as a Senior Planning Analyst in the Industrial Economics Division. He was a Senior Planning Economist in the Economics Division when he left SRI in June 1969 to establish himself as an independent consultant, based in London.

Humph said: "The years I spent at SRI were the best of all my life and what I learned there resulted in my whole career that followed, from 1970 onwards. Over the next 35 years, it made it possible for me to advise on: the merger of Tetley Tea and J Lyons; the merger of the CWS and J W French Milling and Baking; creating the largest vitamin C factory in the world, in Dalry Scotland (Roche Chemicals); building a billion pound food conglomerate (The Food Securities Group); the prevention of the liquidation of Norflex; the creation of The Crown

## IN MEMORIAM (Continued)

Suppliers; and many more. So SRI has been important to me. Thanks for keeping the alumni alive.”

Humph was a longtime governor at John Kelly Boys' Technology College in London.

He is survived by his wife, Myriam.

*The methodology Humph helped develop at SRI and used by him for so many years is described in an article he prepared for this issue of the Newsletter shortly before his death.*

### Ralph Keirstead, Jr.

Ralph Keirstead, Jr. died on November 3 in New York City.

He received a BA in Mathematics from Bowdoin College in 1948, and an MA, also in Mathematics from Johns Hopkins University in 1950.

Ralph was hired by SRI in March 1956 as a Research Mathematician in the Computation Center, where he stayed until March 1964. In June 1967 Ralph was rehired as Head of the Systems Programming Group in the Mathematical Sciences Department. He was a Staff Scientist in the Systems Development Division when he retired in May 1988.

*No further details were available at press time.*

### Joe Lovewell

Paul Joseph “Joe” Lovewell, 90, an SRI pioneer and an international economist, died on Sept 7 at the Sequoias Retirement Home in San Francisco. He had been ill with cancer for several months.



A man of many interests and talents, Joe Lovewell enjoyed part-time careers in journalism, as a stage actor, and tennis player, and traveled the world. Born Sept. 30, 1915 in Topeka, Kansas, he developed an itch to see the world when, at the age of 16, he drove west from Topeka with three friends to attend the 1932 Los Angeles Olympics. Later, in 1936, while attending Washburn College, Joe and his life-long pal Mark Garlinghouse journeyed to China for several months.

While in high school and college, Joe was a serious tennis player and thespian. He won the city tennis championship and had leading roles in numerous plays. He received a B.A. in economics with honors, and was a finalist for a Rhodes scholarship. He was a journalist for the Topeka Daily Capital. Shortly after graduation, Joe married Jean Brownlee and moved to Palo Alto to attend Stanford Business School.

In 1940 Joe graduated 3rd in his class at Stanford, and went to work for Burroughs selling adding machines in San Francisco. During WW II, he served in the Navy as a Supply Officer in Washington D.C. and Cleveland. After brief stints with US Steel in Pittsburgh, and a consulting company in New York, Joe returned to California in 1949 to join his grad school friend Hoot Gibson at the newly founded Stanford Research Institute.

In the late 60's, he received an honorary Doctor of Laws degree from Washburn College.

Joe traveled extensively while at SRI for 15 of the next 17 years, building bridges with companies and governments around the world. He led the development of SRI's Long Range Planning Service, and helped build the Management Sciences Division from a few professionals to several hundred people with representatives and offices around the globe.

Under his direction, the Institute conducted studies for Walt Disney (to determine the location for Disneyland and feasibility of

attractions), built the first business computer for Bank of America (ERMA), researched the effect of Baby Boomers on the American economy and culture, studied the peaceful applications for atomic energy, and reorganized the logistics and supply system for the US Navy, among many other pioneering and innovative projects. In 1953, he was named one of the Bay Area's "Newsmakers of Tomorrow" by the SF Chamber of Commerce and by Time magazine.

In 1965, Joe Lovewell left SRI to found Management and Economics Research Incorporated (MERI) in Palo Alto, which he ran successfully until its 1969 sale to URS Systems Corporation. After a brief stint with DMJM in Southern California, Joe and Jean began their retirement in Mendocino, California. Joe remained active in Rotary Club, taking occasional consulting jobs, including a trip to the Middle East in the late 70's for USAID to assist several countries with economic development plans.

When Jean died in 1983, Joe married life-long friend Marjorie Garlinghouse, the widow of Joe's oldest friend Mark. The two lovebirds enjoyed traveling to China, Eastern Europe, South America, Russia, and many other destinations, from their home base in San Francisco.

Joe often said his time at SRI was the most exciting time in his career. He enjoyed fishing, Stanford football, the 49er's, the Giants, and all forms of theater, opera, and symphony. He and Jean were active for many years at Woodside Village Church, where he served as elder and moderator during the years when a new sanctuary was constructed.

Paul Joseph Lovewell is survived by Marjorie and his children John Lovewell of Atherton, Jan Lovewell of Lund, British Columbia, and Judy Hill of Corvallis, Oregon; five grandchildren and four great-grandchildren. He is also survived by stepsons Kent, Webb, and Whitney Garlinghouse and their families.

### Tom McKenzie\*

Thomas McKenzie passed away in England on 28th September. He had been suffering from cancer.

Tom was hired at SRI in January of 1989 as an accounting assistant in the Croyden office of the International Operations Division. He left in 1991.

### Joe Nanevicz

Joseph Nanevicz, an SRI staff member for more than 40 years, died peacefully on November 6, at the age of 80.

Joe earned BS and MS degrees in Electrical Engineering from the University of Washington in 1951 and 1953, resp. He joined SRI's Antenna Research Laboratory in October 1954 as a student engineer, and subsequently earned a Stanford Ph.D in EE in 1958, studying the precipitation charging of aircraft flying through frozen clouds. This work led Joe and his SRI colleagues to the invention of the electrostatic dischargers still used on aircraft today. Joe enjoyed theoretical work but thrived on innovative laboratory and field experiments.

During his lifetime at SRI he was actively involved in the study of a wide range of natural and man-made electrostatic and electromagnetic phenomena and of their effects on aircraft, rockets, and satellites.

Joe stepped down as Director of the Applied Electromagnetics and Optics Laboratory in the Engineering Systems Division in 1995 to become a Senior Scientific Advisor. He was always proud to say that his Laboratory's work extended "from dc-to-light and from undersea to outer space".

After nearly 44 years, Joe "retired" in July 1998. He was later named Director Emeritus.

He will be remembered not only for his scientific accomplishments, but also for his unique sense of humor, warmth, and management style.

*We had no information at press time on his family or survivors.*

## IN MEMORIAM (Concluded)

### Jerre Noe\*

Jerre D. Noe, perhaps best known at SRI as the leader of the ERMA team that revolutionized bank check clearing in the 1950s, died November 12 after a brief battle with mesothelioma (a rare form of cancer). He was 82.

Jerre was born in McCloud, CA, on the southern flank of Mt. Shasta, on February 1, 1923. He received his BSEE degree from UC Berkeley in 1943. After conducting radar R&D in Europe during World War II, Jerre earned his Ph.D. in electrical engineering from Stanford in 1948.



Jerre joined SRI in September 1948 as an Electronics Engineer in the nascent EE Department and became a pioneer in the newly emerging fields of computers and information engineering.

In the early 1950s, computers were still used largely for scientific calculations, not business functions. Over the course of five years, Noe and his team developed machines that could process checks and enable money to be transferred electronically.

Ed Lazowska, Chair of the Computer Science and Engineering Department at the University of Washington, recalls in wonder, "They had to build all this stuff from scratch. They had to build their own computers. . . This really enabled personal checking and electronic banking as we know it today ... one of the legacies of this project are those illegible numbers at the bottom of your checks."

[The ERMA team won the Wendell B. Gibson Achievement Award from SRI in 2001, as described in the Alumni Newsletter, April 2001, continued in August, 2001.]

Jerre was the Executive Director, Computer Planning & Operations, when he left SRI in July of 1968. In recognition of his contribution of an enduring legacy at SRI, Jerre was inducted into the SRI Alumni Hall of Fame in 1999.

Jerre lived in Seattle since 1968, when he was recruited as the first chairmaen of the University of Washington's Computer Science and Engineering department, building it up from a dozen electrical engineering graduate students in 1968 and transforming it into one of the country's top computer science programs.

Jerre concluded his term as Chair in 1976. Subsequently, as a senior faculty member, he directed the Eden Project, funded by NSF, which established UW as one of the strongest computer systems research groups in the world.

Jerre retired from the University of Washington in 1989, but remained active in the life of the department. He continued his many other pursuits: he played the flute in the Ballard Breeze quintet, skied voraciously, and sailed. As he was approaching 80, he trekked more than 90 miles through the Basque region of Spain.

Jerre's first wife Mary died of liver cancer in 1982. Survivors include his second wife, Margarete; sons Russell Noe of Seattle and Jeff Noe of Denton, Texas; daughter Sherill Roberts of McMinnville, Ore.; and five grandchildren.

*A memorial service for Jerre will be held on Wednesday, December 14 at 5:00 p.m. in the Atrium of the Paul G. Allen Center for Computer Science & Engineering on the University of Washington campus in Seattle. A copy of the announcement is available on the web:<http://noe.cs.washington.edu/>*

\*SRI Alumni Association Member

### Bob Smith\*

Robert Willard Smith, a pioneer in developing SRI's techno-economic research leadership, died at age 88 on August 18.

Bob was born on June 10, 1917 into a family that had come to California during the gold rush period. Raised in Walnut Creek, CA, Bob was one of the first in his family to receive a college degree. In 1938 he received a BA in Business & Industrial Economics from UC Berkeley and in 1941 an MBA from Stanford.

During WW II, he worked for North American Aviation on the development and production of the B-25 bomber and P-51 Mustang. After the war, he worked for Matson Steamship Lines before he joined SRI in June 1948 as an Industrial Engineer in the Business & Industrial Economics Department.

Bob soon launched the Western Economic Development Conferences that established SRI as the premier research organization in the West. He helped develop the Chemical Information Services and in 1958 he instituted the Long-Range Planning Service (LRPS), all of which became long running multi-client advisory services, with hundreds of clients.

Bob always enjoyed exploring new places and cultures. He opened SRI's first European office, in Zürich, and served as European Director from 1961 to 1964. While working there, he was instrumental in the founding of the American International School of Zürich, which has since grown into a prominent international educational institution. In 1965, he proposed the first Executive Seminars in Business, which led to the Business Intelligence Center. Robert led projects all over the world to advise industries and governments on strategic, long-term economic planning.

J. Morse Cavender recalls many far-flung business trips he made with Bob during the 60s, and says that "Bob was a guy who knew how to get the work done. He was always more interested in the technical work at hand than the administrative chores."

Bob was a Senior Planning Consultant and a Group VP for Research Operations when he retired in June 1979, but he continued to work as an international economic adviser throughout the world.

In recognition of his enduring legacy to SRI, Bob Smith was inducted into the SRI Hall of Fame as a charter member in 1998.

Outside work, he most enjoyed reading, fishing, and relaxing with family, especially at the family cabin at West Point in Calaveras County, CA.

Robert was preceded in death by his wife Florence and by his brother Sydney. He is survived by his son Creighton and wife Lynn of Bakersfield; son Kirk and wife Yvonne of Folsom, CA; stepson Robert Agramonte and wife Jessica of Half Moon Bay, CA; stepdaughter Sue Rynerson and husband Robert; stepdaughter Joan Domiter, all of San Diego, CA; and twelve grandchildren.

\* \* \* \* \*

***We learned of the deaths of Ralph M. Heintz\*, Ernest J. Moore\*, and John Rothrock too late for us to include in this issue.***

***There will be a memorial service for Ernie Moore on Monday, Dec. 12 at 4 pm in the Unitarian Universalist Church of Palo Alto, 505 E. Charleston Rd.***

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